

Plasmavision™  
P42HHS10W  
P42HHA10W  
P-SU4H10W

# SERVICE MANUAL

FUJITSU GENERAL Proprietary

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FUJITSU GENERAL LIMITED

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# IMPORTANT INFORMATION

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**WARNING : TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.**

Please use a screen saver to prevent burning of an after-image on the screen.

Electrical energy can perform many useful functions. This unit has been engineered and manufactured to assure your personal safety. But **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD.** In order not to defeat the safeguards incorporated into this unit, observe the following basic rules governing its installation, use and service. Please read these "Important Safeguards" carefully before use.

Read all the safety and operating instructions before operating the unit.

Retain the safety and operating instructions for future reference.

Adhere to all warnings on the unit and in the operating instructions.

Follow all operating instructions.

Unplug the unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

Do not use attachments not recommended by the manufacturer as they may be hazardous.

Do not use the unit near water. Do not use the unit immediately after moving it from a low temperature to a high temperature environment, as this causes condensation, which may result in fire, electric shock, or other hazards.

Do not place the unit on an unstable cart, stand, or table. The unit may fall, causing serious injury to a child or adult, and serious damage to the unit. Mount the unit according to the manufacturer's instructions, using the mount recommended by the manufacturer.

When the unit is used on a cart, avoid quick stops, excessive force, and uneven surfaces which may cause the unit and cart to overturn, damaging the unit or causing possible injury to the operator.

When transporting by car, place the unit as shown in the figure.



Slots and openings in the cabinet are provided for ventilation. These ensure reliable operation and protect the unit from overheating. These openings must not be blocked or covered. (The openings should never be blocked by placing the unit on a bed, sofa, rug, or similar surface. The unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions are adhered to.) For proper ventilation, separate the unit from other equipment, which may obstruct ventilation. Keep the unit at least 10cm from other equipment.

Operate only with the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

This unit is equipped with a three-wire plug. This plug will fit only into a grounded power outlet. If you cannot insert the plug into the outlet, have an electrician install the proper outlet. Do not defeat the safety purpose of the grounded plug.

Route power cords so that they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to cords at doors, plugs, receptacles, and where they exit from the unit.

For added protection during a lightning storm, or when the unit is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cabling. This will prevent damage to the unit by lightning and power line surges.

Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in fire or electric shock.

Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-circuit parts that could result in a fire or electric shock. Never spill liquid of any kind onto the unit.

Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltages and other hazards. Have all service done by qualified service personnel.

Unplug this unit from the wall outlet and have it serviced by qualified service personnel in the following cases:

- a) If the power supply cord or plug is damaged.
- b) If liquid has been spilled, or objects have fallen onto the unit.
- c) If the unit has been exposed to rain or water.
- d) If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the Operation Manual, as improper adjustment of controls may result in damage and will often require extensive work by a qualified technician to restore the unit to normal operation.
- e) If the unit has been dropped or damaged in any way.
- f) A distinct change in performance indicates that service is required.

When required, be sure the service technician uses replacement parts specified by the manufacturer or parts with the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

Upon completion of any service of repairs, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

Place the unit more than one foot away from heat sources such as radiators, heat registers, stoves, and other devices (including amplifiers) that produce heat.

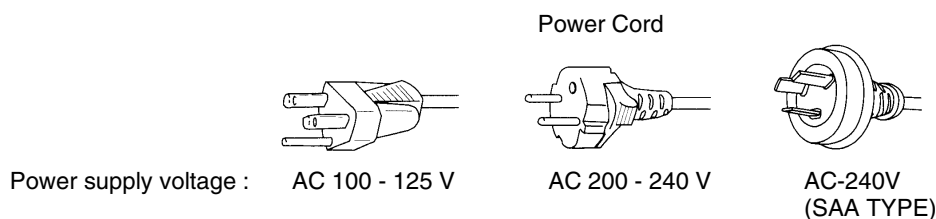
When connecting other devices such as VCR's and personal computers, turn off the power to this unit to protect against electric shock.

Do not place combustibles such as cloth, paper, matches, aerosol cans or gas lighters that prevent special hazards when overheated behind the cooling fan.

Use only the accessory cord designed for this unit to prevent shock.

The power supply voltage rating of this unit is AC100-240V, but the attached power cord conforms to the following power supply voltage. Use only the Power Cord designated by our dealer to ensure Safety and EMC.

When used with other power supply voltages, the power cable must be changed.  
Consult your local dealer.



# SPECIFICATIONS

## Model : P42HHS10W/E

### Power requirement

PDP UNIT	110-240V, 50/60Hz
SELECTOR UNIT	110-240V, 50/60Hz
Current drain	
PDP UNIT	4.3A-1.8A
SELECTOR UNIT	0.4A

### Display panel

Screen size	UB type 92.2(W) X 52.2(H) [cm] 36.3(W) X 20.6(H) [inch]
Aspect ratio	16 : 9
Number of pixels	1,024(H) X 1024(V) pixels
Pixel pitch	0.90mm X 0.51mm
Contrast ratio	1000 : 1
Luminance	1000 cd/m <sup>2</sup>
Viewing angle	Max. 160 degrees

### Input/Output Terminals of

#### PDP unit

DVI input	DVI-D terminal (HDCP) Differential Input $0.5 \pm 10\%$ (RXC $\pm$ , RX0 $\pm$ , RX1 $\pm$ , RX2 $\pm$ )
Display frequency	Horizontal : 33.75MHz Vertical : 60Hz Dot clock : 40.5MHz
Digital(optical) audio input	Optical Input -27dB to -14.5dB
Effective max. output	Level terminal 10W+10W (L/R), 6 $\Omega$

### Input/Output Terminals of

#### SELECTOR unit

Video input	RCA terminal 1.0V <sub>P-P</sub> /75 $\Omega$
S video input	S terminal Y signal : 1.0V <sub>P-P</sub> /75 $\Omega$ C signal : 0.286V <sub>P-P</sub> /75 $\Omega$
Component video input	Three RCA terminals (one system) Y : 1.0V <sub>P-P</sub> /75 $\Omega$ Pb/B-Y : 0.7V <sub>P-P</sub> /75 $\Omega$ Pr/R-Y : 0.7V <sub>P-P</sub> /75 $\Omega$
Video input (E model)	SCART terminal
Video	1.0V <sub>P-P</sub> /75 $\Omega$
S video	Y signal : 1.0V <sub>P-P</sub> /75 $\Omega$ C signal : 0.286V <sub>P-P</sub> /75 $\Omega$
RGB	G : 0.7V <sub>P-P</sub> /75 $\Omega$ B : 0.7V <sub>P-P</sub> /75 $\Omega$ R : 0.7V <sub>P-P</sub> /75 $\Omega$
Digital RGB1 input	DVI-D terminal (HDCP) Differential Input $0.5 \pm 10\%$ (RXC $\pm$ , RX0 $\pm$ , RX1 $\pm$ , RX2 $\pm$ )

Analog RGB2/ RGB3 input	mD-sub : 15pin(3 row type) Video : 0.7V <sub>P-P</sub> /75 $\Omega$ SYNC signal : TTL level
----------------------------	---

User set mode	8 memories (each RGB1,2,3)
Display frequency	Horizontal : 15.63 to 80.0MHz Vertical : 50.0 to 120Hz Dot clock : 50MHz Max. XGA 68MHz

Digital RGB1 output	DVI-D terminal (HDCP) Differential Input $0.5 \pm 10\%$ (RXC $\pm$ , RX0 $\pm$ , RX1 $\pm$ , RX2 $\pm$ )
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Analog audio input	Two RCA terminals (one system) 500mVrms/22K $\Omega$
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Digital(optical) audio input	Optical Input -24dB to -14.5dB
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Digital(optical) audio output	Optical Input
for Display	-21dB to -15dB
for audio amp	-21dB to -15dB

### Color system

NTSC/PAL/SECAM/N-PAL/M-PAL  
/4.43NTSC/PAL60

### Display colors

16.7 million (256 each for R.G.B.)

### Outer dimensions

PDP UNIT	Width : 103.7cm (40.8 inch) Height : 64.2cm (25.3 inch) Depth : 8.5cm (3.3 inch)
SELECTOR UNIT	Width : 43.0cm (16.9 inch) Height : 9.5cm (3.7 inch) Depth : 37.0cm (14.6 inch)

### Net weight

PDP UNIT	28.5kg
SELECTOR UNIT	4.5kg

### Environment (Operating)

Temperature	0 to 40°C
Relative humidity	20 to 80%
Pressure	800 to 1,114 hPa

### Accessories

PDP UNIT	User's manual Power cord Ferrite core (2) System cable (Video) System cable (Audio)
SELECTOR UNIT	Power cord Remote controller Batteries (Type AA x 2) User's manual (only E model)

## Options

Stand	P-TT4200
Wall mounting unit	P-WB4200
	0° to 15° mounting angle
Hanging unit	P-CT4200
	0° to 15° mounting angle
Speaker	P-SP4200
Speaker stand	P-ST4200

## Standards

P42HHS10WS	P-SU4H10WS
P42HHS10ES	P-SU4H10ES

### ● UL, CSA

Safety: UL6500	UL6500
C-UL	C-UL
EMC: FCC Part15 Class B	FCC Part15 Class B
ICES-003 Class B	ICES-003 Class B

### ● CE

Safety:	EN60065	EN60065		
EMC :	EN55022	1998	EN55013	2001
	EN61000-3-2	1995	EN55020	1994
	EN61000-3-3,	1995		
	EN55024	1998		
	EN61000-4-2,	1995		
	EN61000-4-3,	1996		
	EN61000-4-4,	1995		
	EN61000-4-5,	1995		
	EN61000-4-6,	1996		
	EN61000-4-8,	1993		
	EN61000-4-11,	1994		

### ● AS

Safety : IEC60065	IEC60065
EMC : AS/NZS 3548	AS/NZS 1053

# Model : P42HHA10W/E

<b>Power requirement</b>	110-240V, 50/60Hz
Current drain	4.4-1.9A
<b>Display panel</b>	UB type
Screen size	92.0(W) X 51.8(H) [cm] 36.2(W) X 20.4(H) [inch]
Aspect ratio	16 : 9
Number of pixels	1,024 (H) X 1024 (V) pixels
Pixel pitch	0.90mm X 0.51mm
Contrast ratio	P42HHA10 1000 : 1 (typ.)
Luminance	1000 cd/m <sup>2</sup> (ryp.)
Viewing angle	Max. 160 degrees
<b>Input Terminals</b>	
Video input	BNC connector 1.0V <sub>P-P</sub> /75Ω
S video input	S terminal Y signal:1.0V <sub>P-P</sub> /75Ω C signal:0.286V <sub>P-P</sub> /75Ω
Component video input	Three BNC terminals Y : 1V <sub>P-P</sub> /75Ω P <sub>b</sub> /B-Y: 0.7V <sub>P-P</sub> /75Ω P <sub>r</sub> /R-Y: 0.7V <sub>P-P</sub> /75Ω
RGB 1 input	24Pin DVI-D (HDCP) Differential Input 0.5V ± 10% (RXC±, RX0±, RX1±, RX2±)
RGB 2 input	mD-sub:15pin (3 row type) Video : 0.7V <sub>P-P</sub> /75Ω SYNC signal : TTL level
RGB 3 input	BNC terminal x 5 R: 0.7V <sub>P-P</sub> /75Ω G: 0.7V <sub>P-P</sub> /75Ω B: 0.7V <sub>P-P</sub> /75Ω H: TTL level or 0.3V <sub>P-P</sub> /75Ω V: TTL level or 0.3V <sub>P-P</sub> /75Ω
User set mode	8 memories (each RGB1,2,3)
Display frequency	Horizontal :15.63 to 80.0MHz Vertical : 50.0 to 120Hz Dot clock:50MHz Max XGA 68MHz Max
<b>RS-232C</b>	D-sub 9 pin terminal
<b>Color system</b>	NTSC/PAL/SECAM/N-PAL/M-PAL /4.43NTSC/PAL60
<b>Display colors</b>	16.7 million (256 each for R.G.B.)
<b>Audio input</b>	2 pin terminals(three system) 500mVrms/22kΩ
Effective max. output	Level terminal 20W+20W (L/R), 4Ω
<b>Dimensions</b>	Width : 103.5cm (40.7 inch) Height: 64.2cm (25.2 inch) Depth : 8.5 cm ( 3.3 inch)

<b>Net weight</b>	28.5kg
<b>Environment (Operating)</b>	
Temperature	0° to 40°C
Relative humidity	20 to 80%
Pressure	800 to 1,114 hPa
<b>Accessories</b>	User's manual Remote controller Batteries (Type AA x 2) Power cord Ferrite core (2)
<b>Options</b>	
Stand	P-TT4200
Wall mounting unit	P-WB4200 0° to 15° mounting angle
Hanging unit	P-CT4200 0° to 15° mounting angle
Speaker	P-SP4200
Speaker stand	P-ST4200
<b>Standards</b>	P42HHA10W P42HHA10E
•UL,CSA	
Safety:UL6500	UL6500
CSA C22.2 No.	CSA C22.2 No.
EMC: FCC Part15 Class A	FCC Part15 Class B
ICES-003 Class A	ICES-003 Class B
•CE	
Safety:	EN60065 1992 EN60065 1992
A1	1993 A1 1993
A2	1993 A2 1993
A3	1995 A3 1995
A4	1997 A4 1997
EMC :	EN55022 A1/A2 EN55022 A1/A2
Class A	Class B
EN61000-3-2, 1995	EN61000-3-2, 1995
EN61000-3-3, 1995	EN61000-3-3, 1995
EN55024 1998	EN55024 1998
EN61000-4-2, 1995	EN61000-4-2, 1995
EN61000-4-3, 1996	EN61000-4-3, 1996
EN61000-4-4, 1995	EN61000-4-4, 1995
EN61000-4-5, 1995	EN61000-4-5, 1995
EN61000-4-6, 1996	EN61000-4-6, 1996
EN61000-4-8, 1993	EN61000-4-8, 1993
EN61000-4-11,1994	EN61000-4-11, 1994
•AS	
Safety :	I60065 A1/A2/A3/A4 I60065 A1/A2/A3/A4
EMC :	AS/NZS 3548 AS/NZS 3548

# SETTING SIGNALS

This display can store parameter settings for eight additional signals for RGB.  
To do this, select the desired signal and follow "RGB MODE ADJUSTMENT" in the manual to adjust the parameters.  
When you finish, the settings will be automatically stored.

## FACTORY SET SIGNALS (RGB MODE)

Main corresponding signals (RGB mode)

Display (dots x lines)	Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal	DVD-I
640 x 480	31.47	59.94	VGA	<input type="radio"/>
640 x 480	37.50	75.00	VGA 75 Hz	
640 x 480	43.27	85.01	VGA 85 Hz	
720 x 400	31.47	70.09	400 lines	<input type="radio"/>
800 x 600	37.88	60.32	SVGA 60 Hz	<input type="radio"/>
800 x 600	46.88	75.00	SVGA 75 Hz	
800 x 600	53.67	85.06	SVGA 85 Hz	
1024 x 768	48.36	60.00	XGA 60 Hz	<input type="radio"/>
1024 x 768	60.02	75.03	XGA 75 Hz	
1024 x 768	68.68	84.99	XGA 85 Hz	
1280 x 1024	63.98	60.02	SXGA 60 Hz	
1280 x 1024	79.98	75.03	SXGA 75 Hz	
1600 x 1200	75.00	60.00	UXGA 60 Hz	
1600 x 1200	106.25	85.00	UXGA 85 Hz	
848 x 480	31.02	60.00		<input type="radio"/>
852 x 480	31.72	59.97		
1360 x 768	47.71	60.01		
720 x 485	15.73	59.94	60 fields	
720 x 575	15.63	50.00	50 fields	

\* With some input signals, "Out of range" may appear even when the horizontal and vertical frequencies are within their permissible ranges. Make sure that the vertical frequency of the input signal is 85 Hz or less for SVGA, 75 Hz or less for XGA/ SXGA , 60 Hz or less for UXGA.



### FACTORY SET SIGNALS (Component video mode)

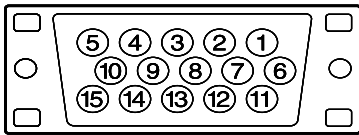
Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
15.73	59.94	SDTV 480i
15.63	50.00	SDTV 576i
31.47	59.94	SDTV 480p
31.25	50.00	SDTV 576p
45.00	60.00	HDTV 720p
37.50	50.00	HDTV 720p
33.75	60.00	HDTV 1,080i
28.13	50.00	HDTV 1,080i

### FACTORY SET SIGNALS (Video, S-video mode)

Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
15.73	59.94	NTSC
15.63	50.00	PAL
15.63	50.00	SECAM
15.63	59.52	PAL 60
15.63	50.00	N-PAL
15.73	59.95	M-PAL
15.73	59.94	4.43 NTSC

- The dedicated graphics card is optional.
- In the 800 x 600 and 1,024 x 768 modes, images of reduced size are displayed on the screen, using size reduction and interpolation. Also note that on-screen information is also displayed in reduced size.
- "Out of range" appears if the display receives a signal whose characteristic does not fall within the display's permissible range.
- You can check the input signals with "Information" on the OTHERS Menu screen.

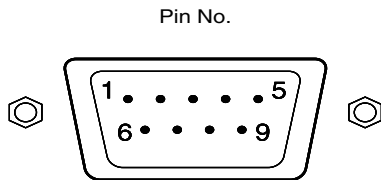
## RGB INPUT TERMINAL



\* The sync switch (TTL/ANALOG switch) is on the rear of the 13-pin horizontal sync and 14-pin vertical sync terminals.

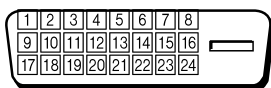
Pin No.	Input signal	Pin No.	Input signal
1	Red	9	
2	Green	10	Ground
3	Blue	11	
4		12	
5	Ground	13	Horiz. sync
6	Ground	14	Vert. sync
7	Ground	15	
8	Ground	Outer side	Ground

## RS-232C INPUT TERMINAL



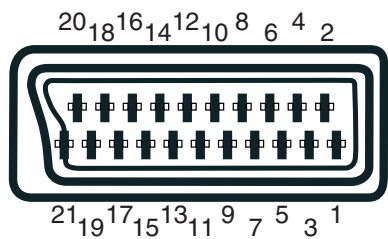
Pin No.	No. signal
1	DCD (Data Carrier Detect)
2	RD (Receive Data)
3	TD (Transmit Data)
4	DTR (Data Terminal Ready)
5	GND (Ground)
6	DSR (Data Set Ready)
7	RTS (Request To Send)
8	CTS (Clear To Send)
9	RI (Ring Indication)

## DVI-D INPUT TERMINAL



Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	T.M.D.S. Data2 -	9	T.M.D.S. Data1 -	17	T.M.D.S. Data0 -
2	T.M.D.S. Data2 +	10	T.M.D.S. Data1 +	18	T.M.D.S. Data0 +
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	-	12	-	20	-
5	-	13	-	21	-
6	DDC Clock	14	+5V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground(for +5V)	23	T.M.D.S. Clock +
8	-	16	Hot Plug Detect	24	T.M.D.S. Clock -

SCART TERMINAL

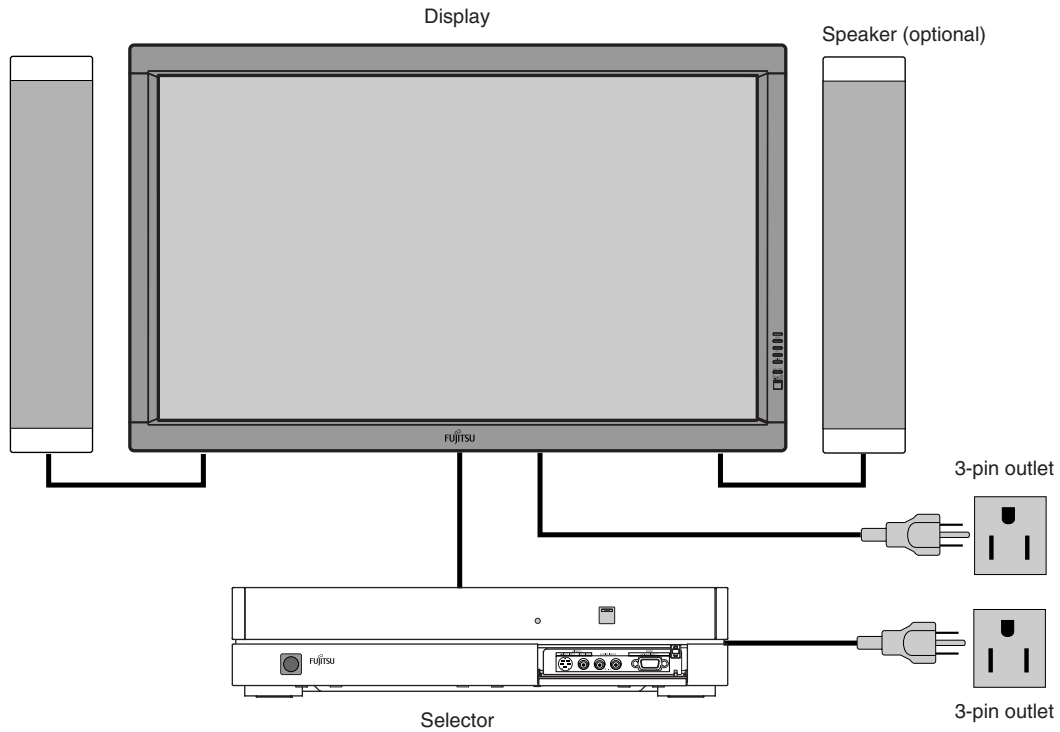


Pin No.	Input Signal	Pin No.	Input Signal	Pin No.	Input Signal
1	—	8	—	15	Red/chrominance
2	Right audio	9	Green ground	16	—
3	—	10	—	17	—
4	Audio ground	11	Green	18	Composite video ground
5	Blue ground	12	—	19	—
6	Left audio	13	Red ground	20	Composite video/Y
7	Blue	14	—	21	Ground

# CONNECTION

Model : P42HHS10W/E

## BASIC SYSTEM CONNECTIONS



### 1. Connect the following items to the selector and the display

#### ① Selector and display

Connect these two with the provided system connection cable. (For details, see the page on the right.)a

#### ② Speakers

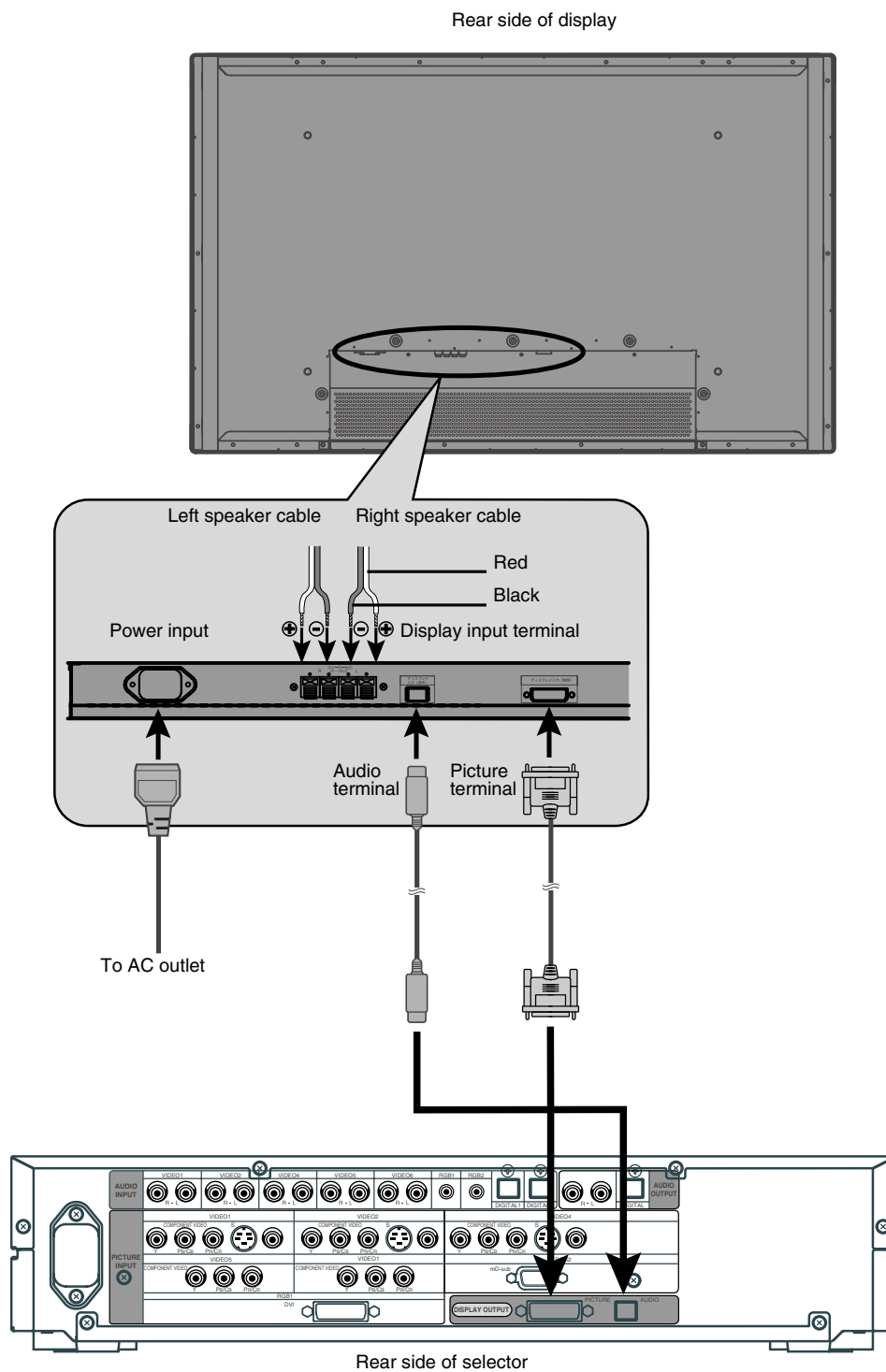
For how to connect speakers, see the instructions provided with the speakers.

### 2. Connecting the power cord

- Connect the power plug of the display and selector power cords to a 3-pin outlet.

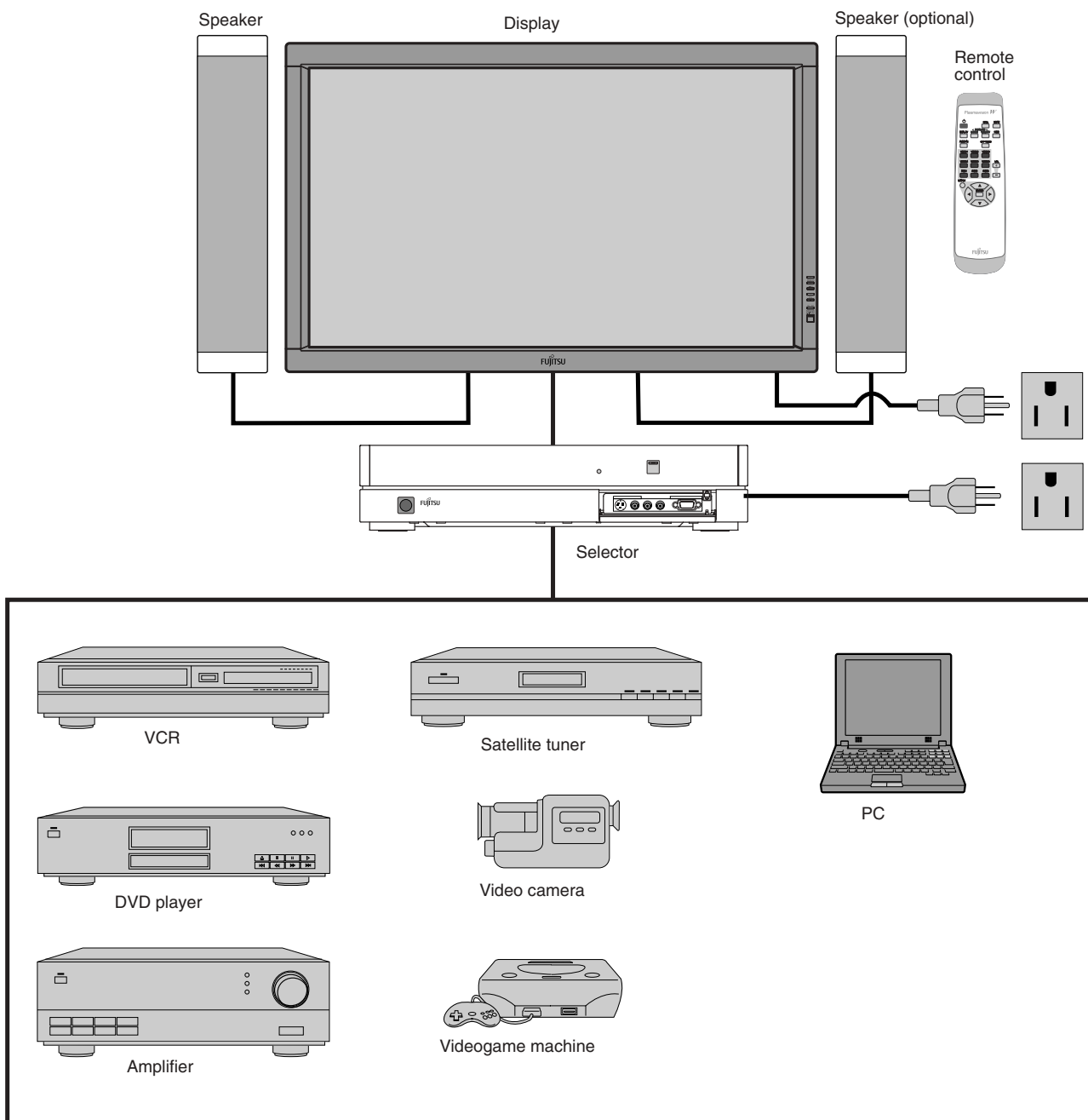
**Model : P42HHS10W**

## **CONNECTING THE DISPLAY AND THE SELECTOR**



**Model : P42HHS10W/E**

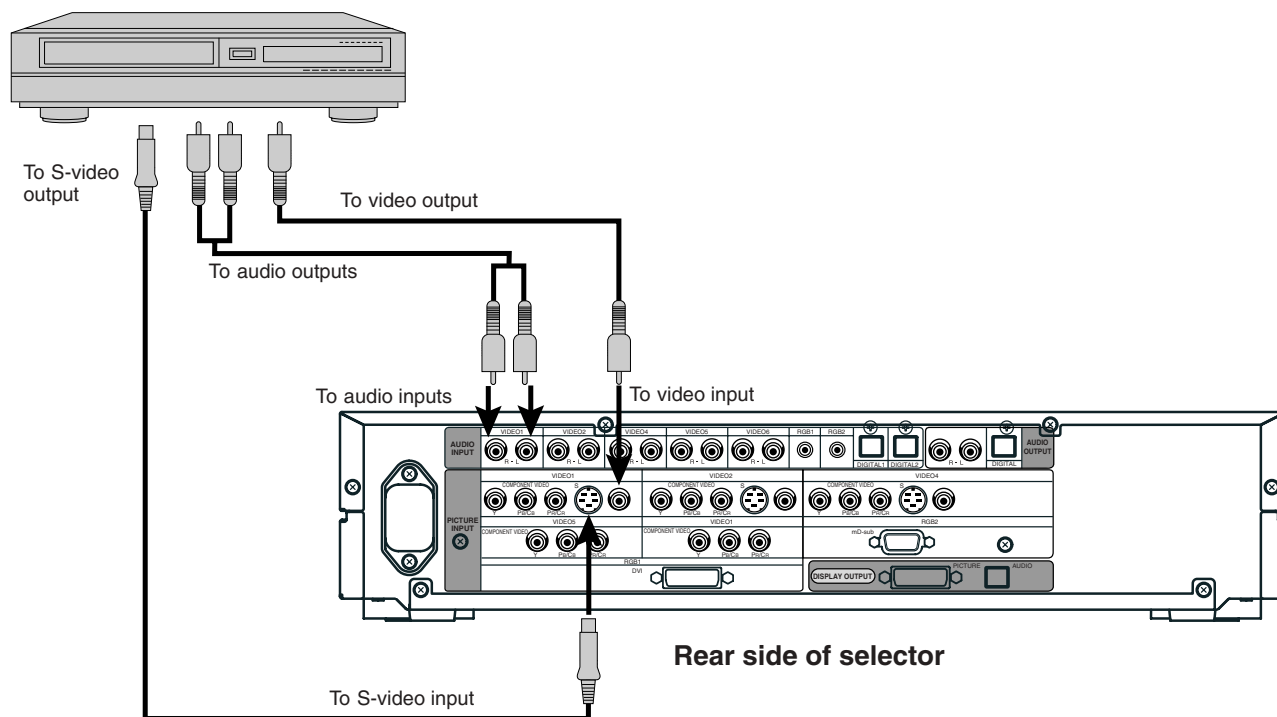
## EXAMPLE OF CONNECTION TO EXTERNAL COMPONENTS



# Model : P42HHS10W

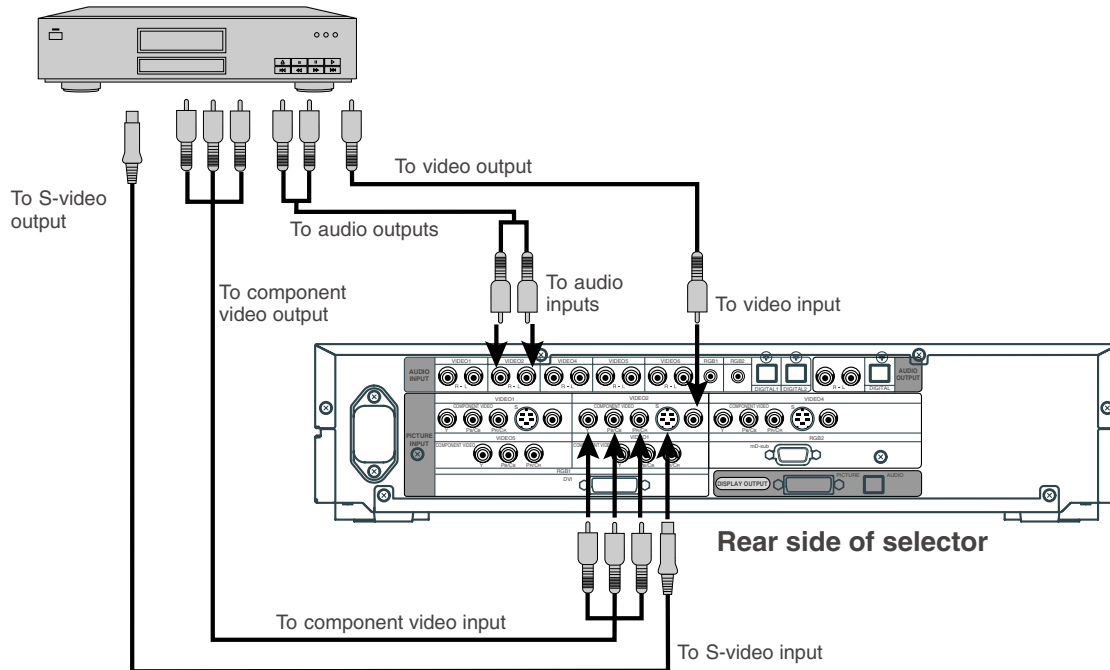
## VCR

- Connect the video signal cable to either the S-video input terminal or the video input terminal.



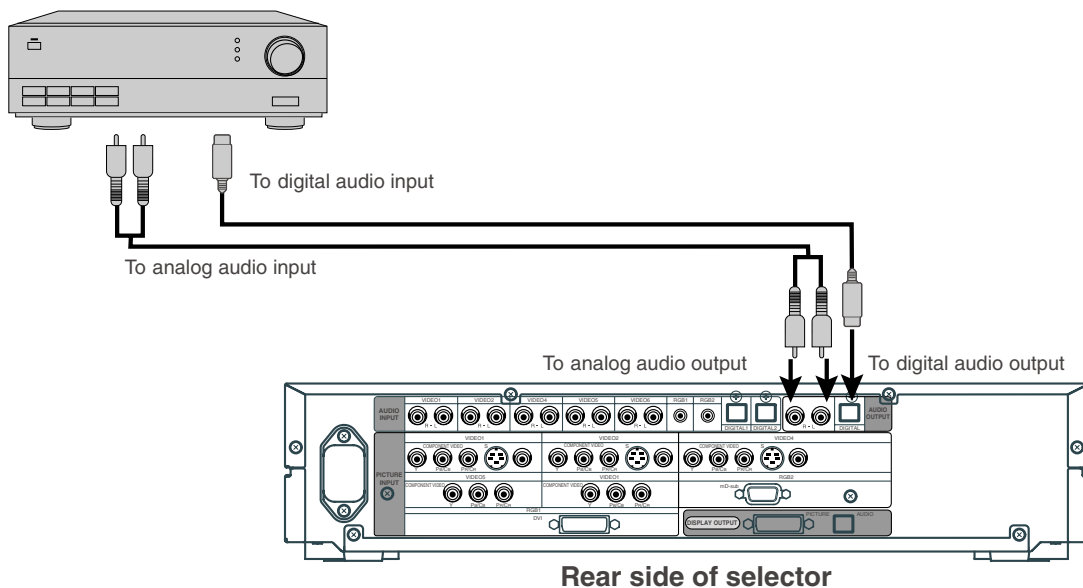
## DVD PLAYER

- Connect the video signal cable to the component video input terminal, S-video input terminal, or the video input terminal.
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.



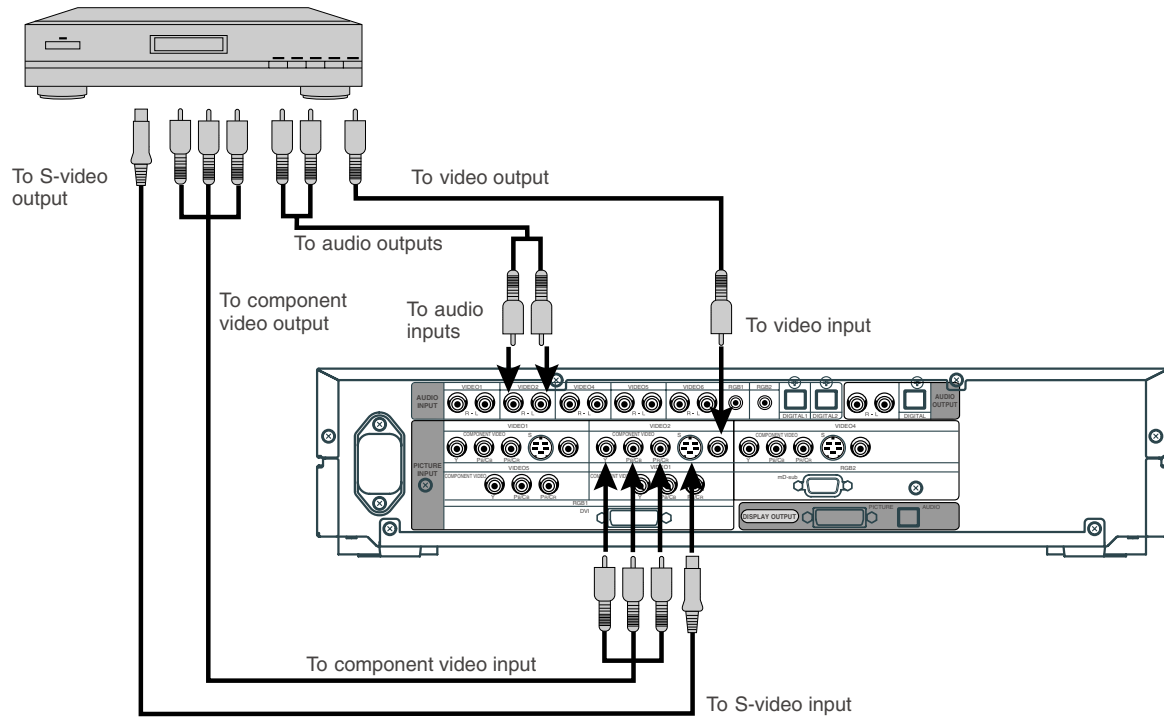
## AMPLIFIER

- Connect the audio signal cable to either the digital output or the analog audio output.
  - \* The signal input as digital input is not output as analog audio.
  - \* The digital audio input terminal on the display complies with a sampling frequency of 48 kHz.
- In the case of outputs with another frequency, connect to an audio system (amplifier)\*.



## SATELLITE TUNER

- Connect the video signal cable to the component video input terminal, S-video input terminal, or the video input terminal.
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.

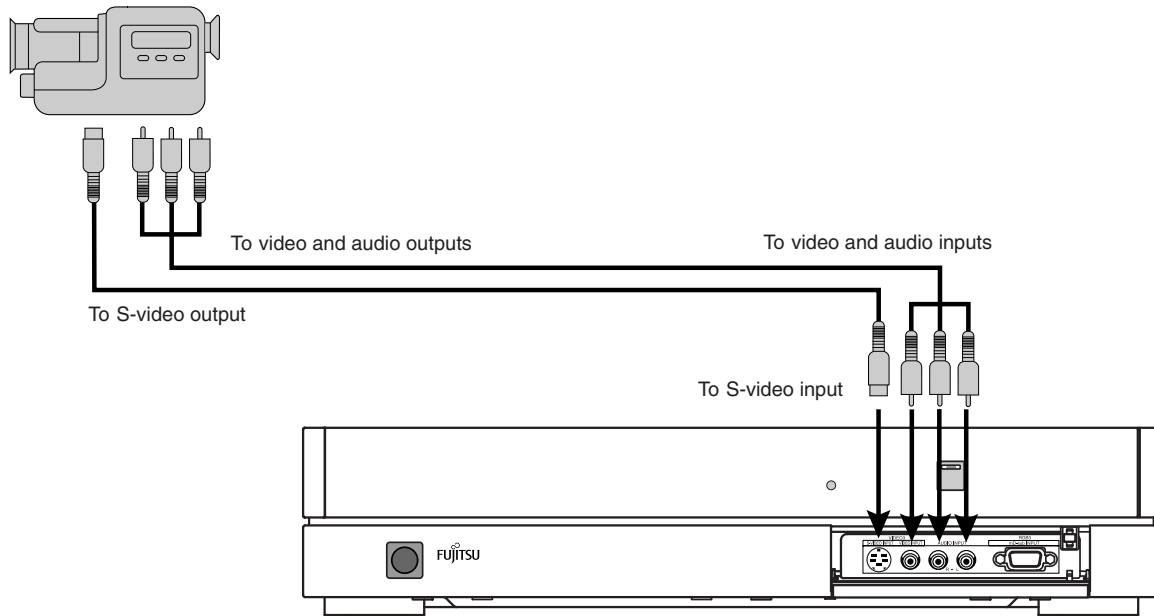




# Model : P42HHS10W/E

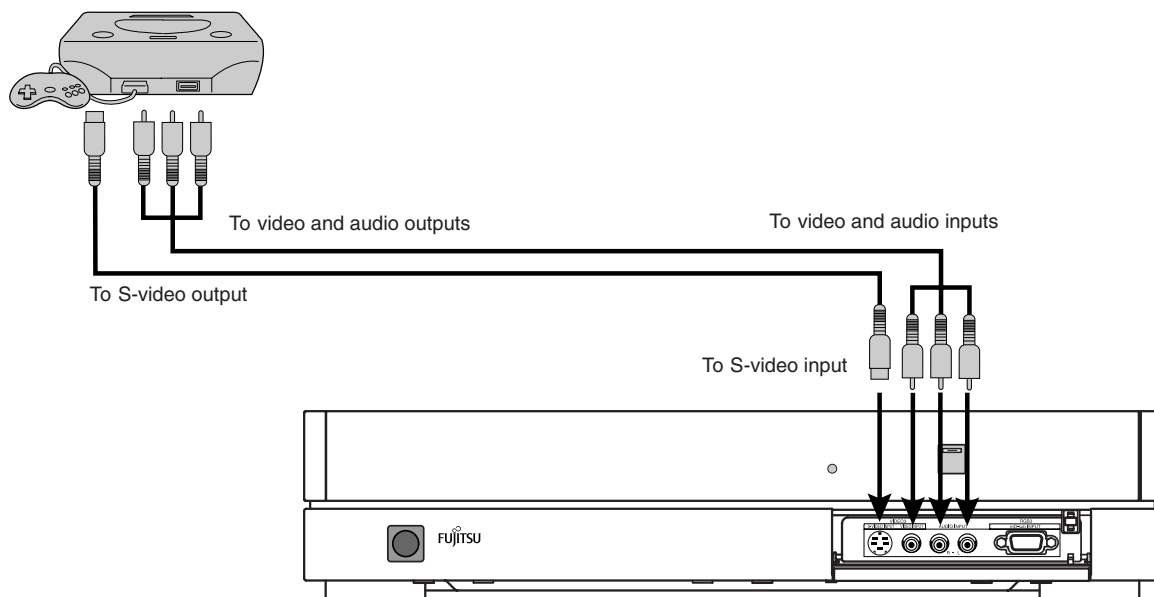
## VIDEO CAMERA

- A video camera can conveniently be connected to the Video 3 input on the front side.
- Connect the video signal cable to either the S-video input terminal or the video input terminal.
- If the unit to be connected is equipped with S-video output terminal, it is recommended to connect to the S-video terminal.



## VIDEOGAME MACHINE

- As the connecting cable differs with videogame machines, please consult the instructions for your videogame machine.
- Connect the video signal cable to either the S-video input terminal or the video input terminal.
- Ensure that the same image (pattern) is not displayed on the screen for an extended period. If the same image is displayed on the screen for an extended period, the brightness of that part of the screen may change and image burn-in may leave an after-image on the screen.
- If the videogame machine to be connected is equipped with S-video output terminal, it is recommended to connect to the S-video terminal.

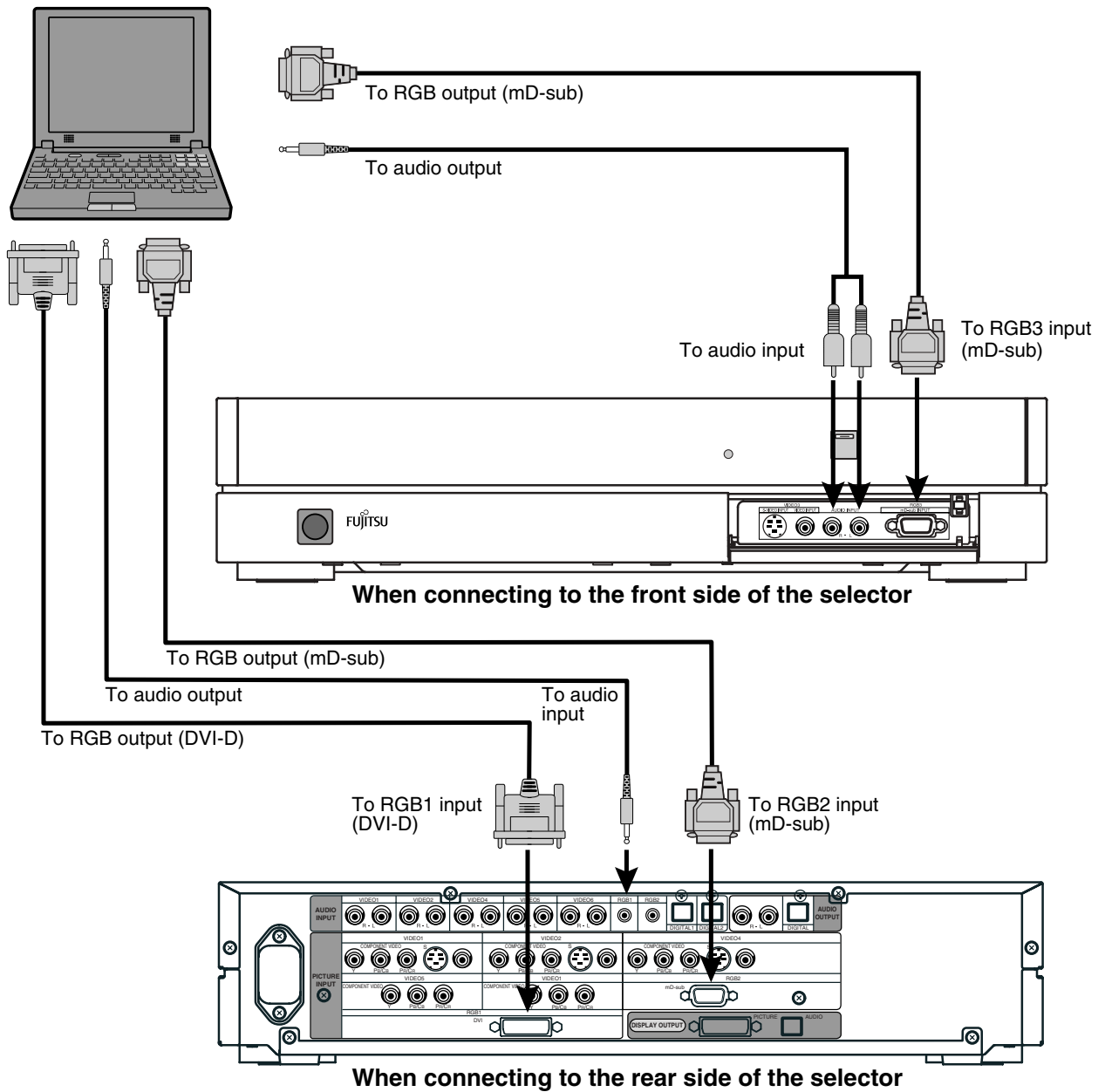


Front side of selector

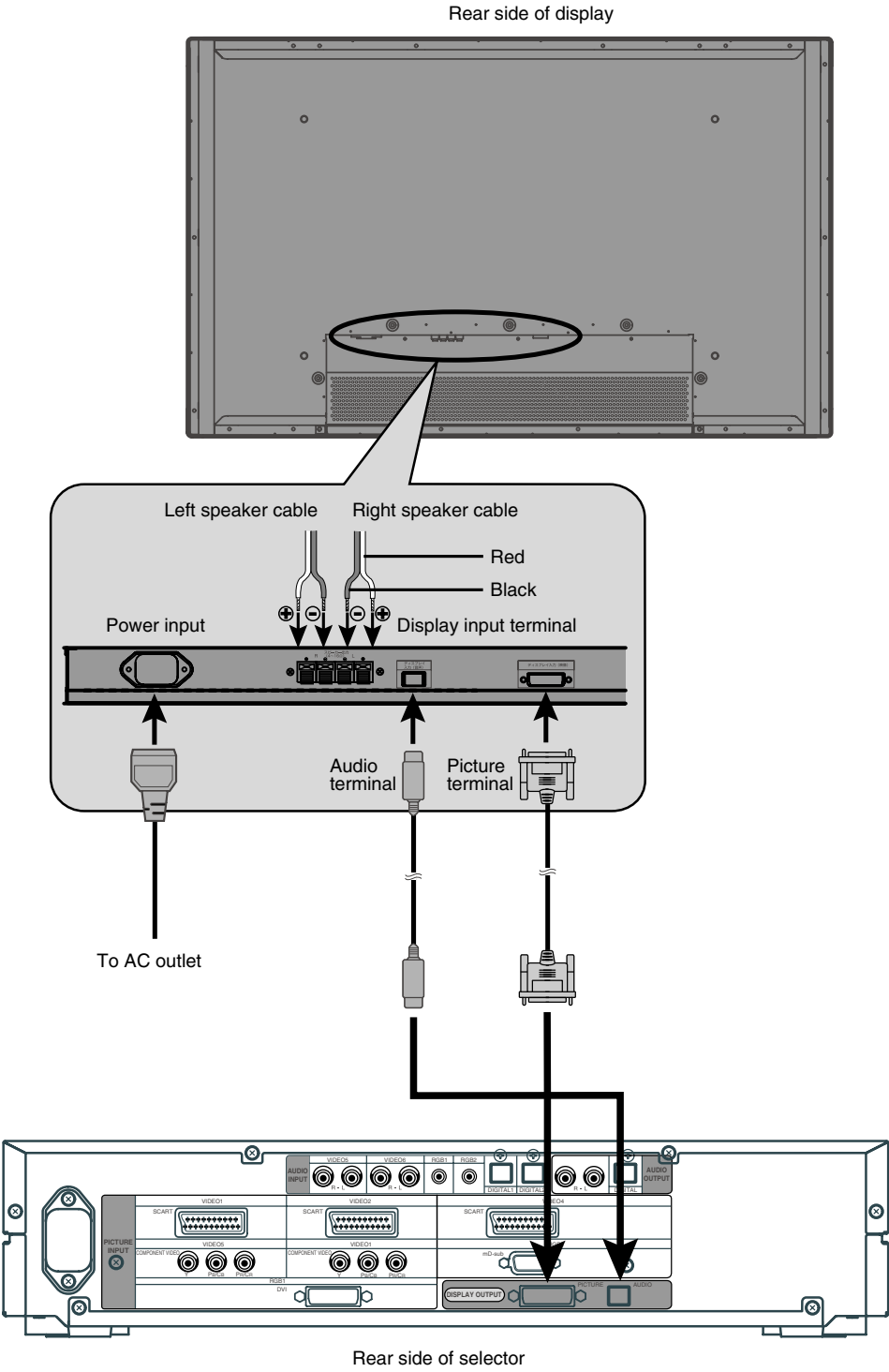
# Model : P42HHS10W

## PC

- As the cable for connecting a PC differs with the PC model, please consult your dealer for information on the right cable to purchase.
- The PC can be connected to either the front side or the rear side, whichever is most convenient.

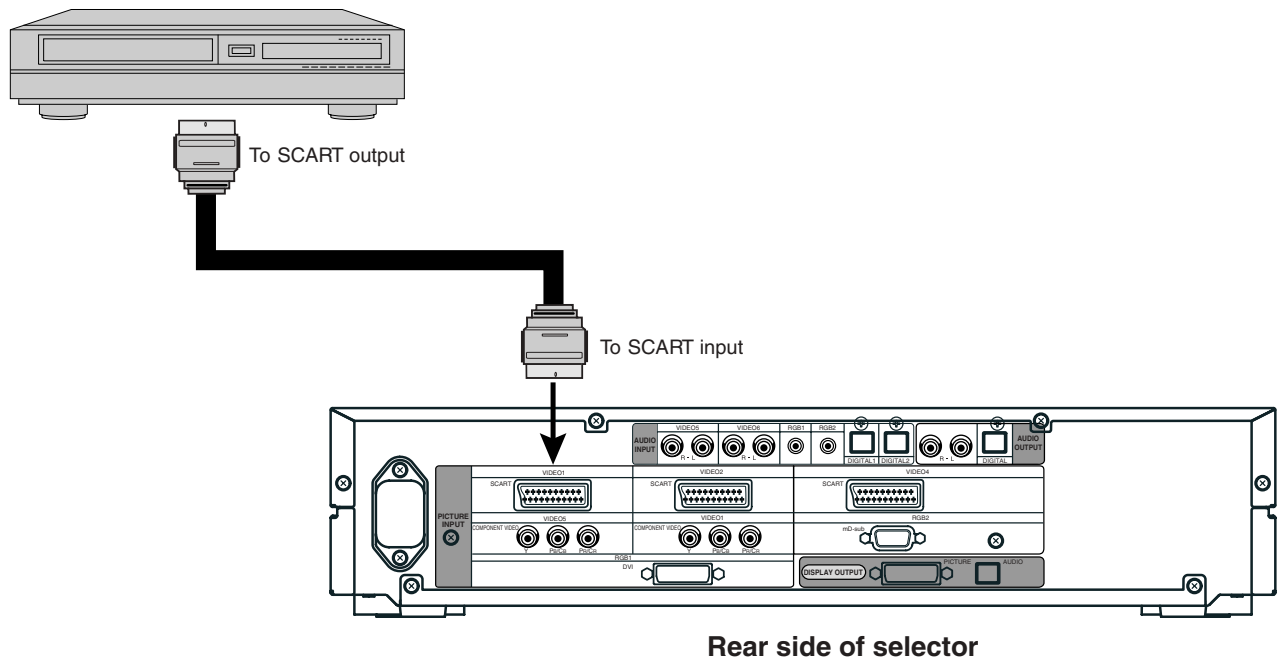


Model : P42HHS10E



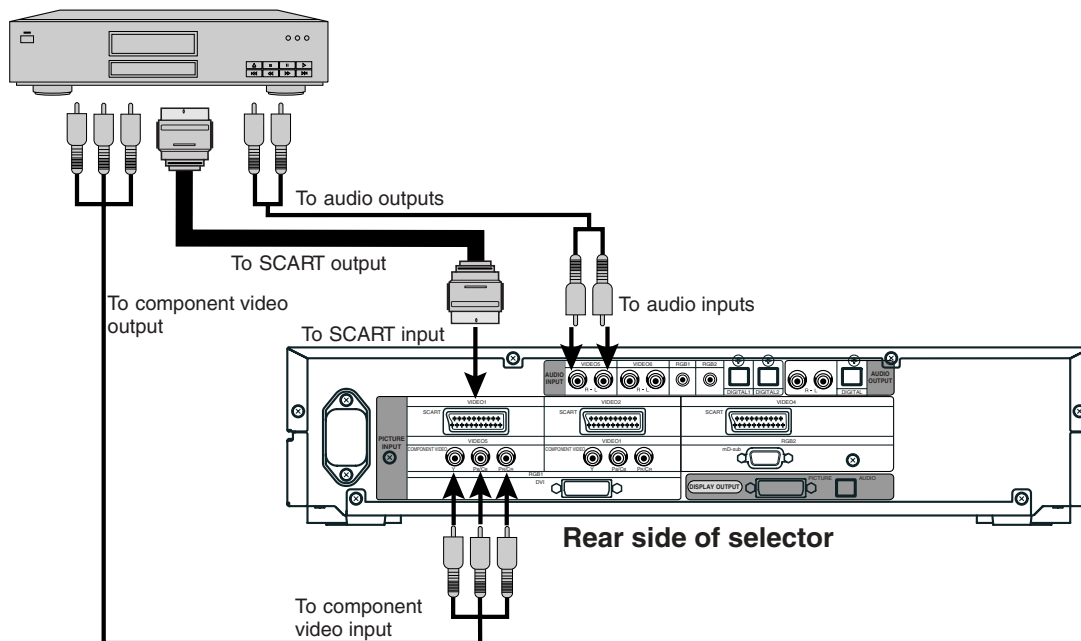
## VCR

- Connect the video signal cable to the SCART terminal.



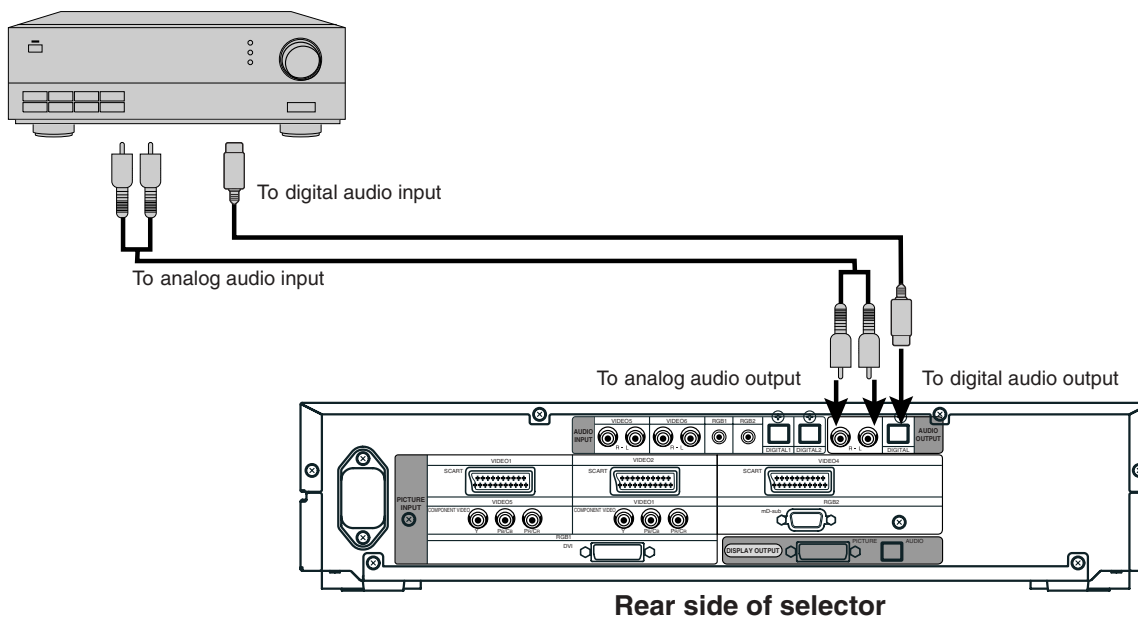
## DVD PLAYER

- Connect the video signal cable to either the component video terminal or the SCART terminal.
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.



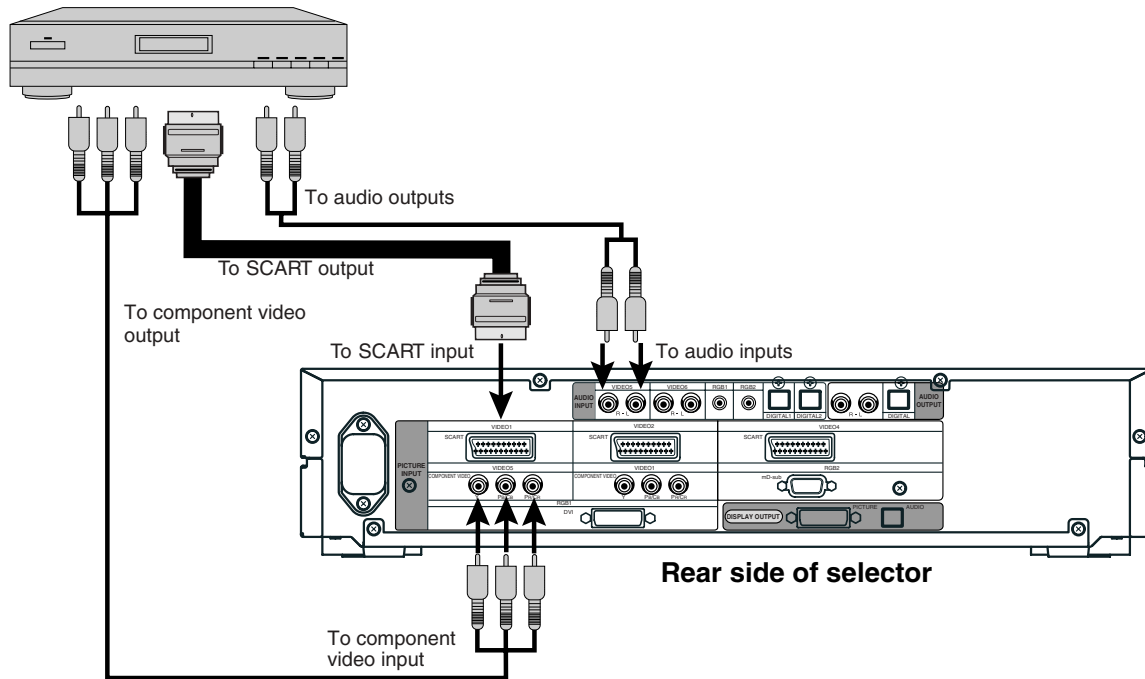
## AMPLIFIER

- Connect the audio signal cable to either the digital output or the analog audio output.
  - \* The signal input as digital input is not output as analog audio.
  - \* The digital audio input terminal on the display complies with a sampling frequency of 48 kHz.
- In the case of outputs with another frequency, connect to an audio system (amplifier)\*.



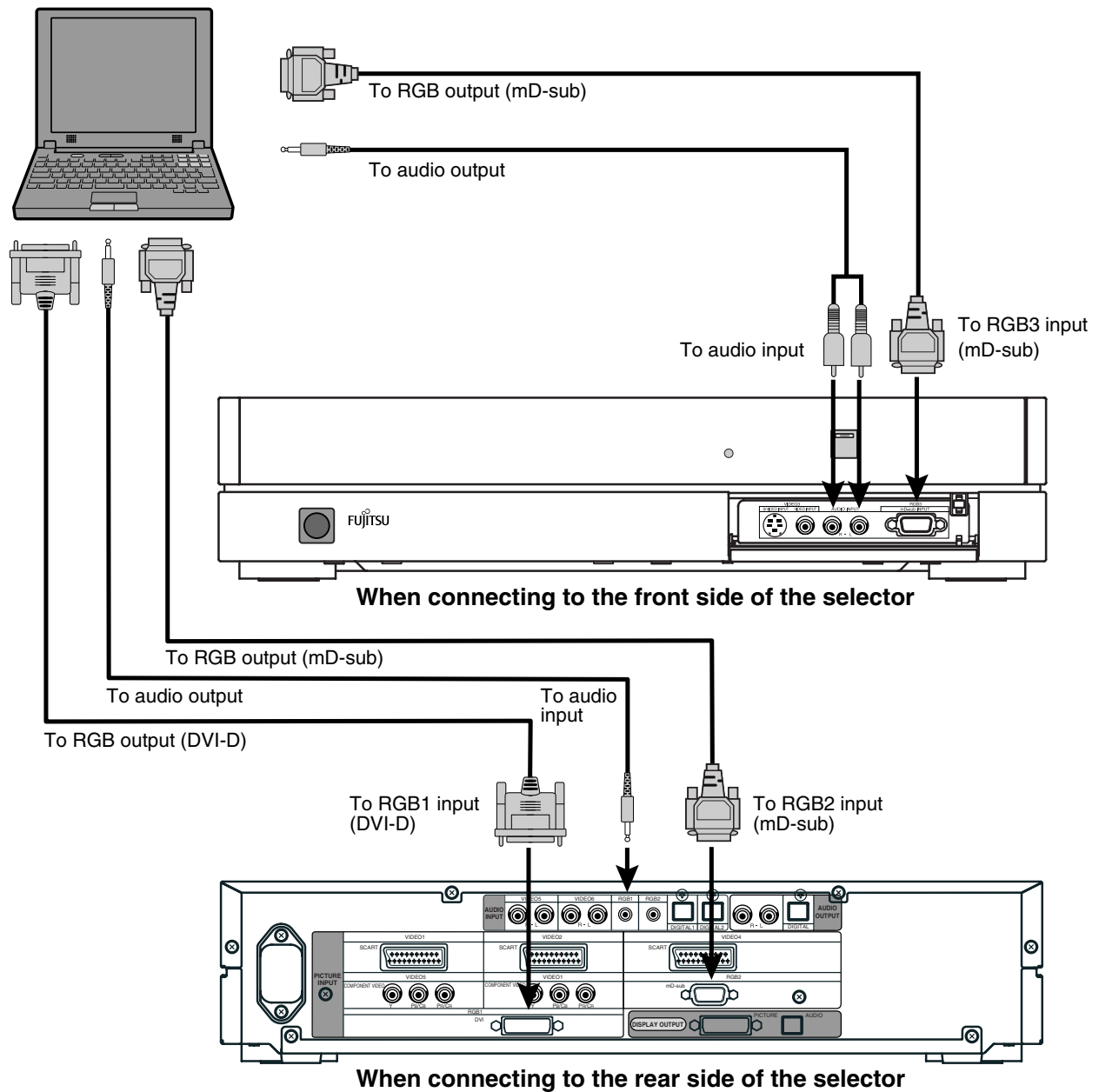
## SATELLITE TUNER

- Connect the video signal cable to either the component video terminal or the SCART terminal.
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.



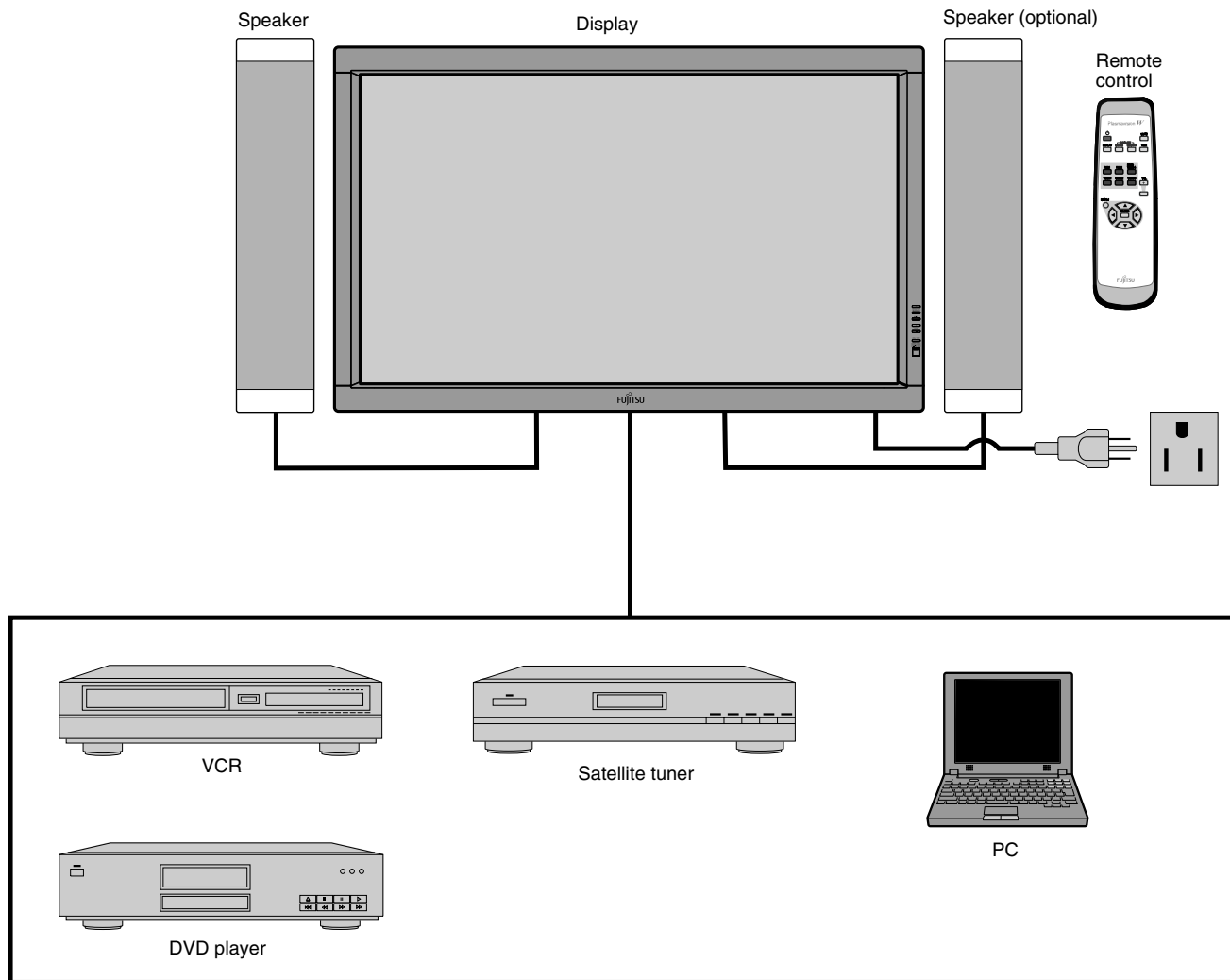
## PC

- As the cable for connecting a PC differs with the PC model, please consult your dealer for information on the right cable to purchase.
- The PC can be connected to either the front side or the rear side, whichever is most convenient.



# Model : P42HHA10W/E

## EXAMPLE OF CONNECTION TO EXTERNAL COMPONENTS

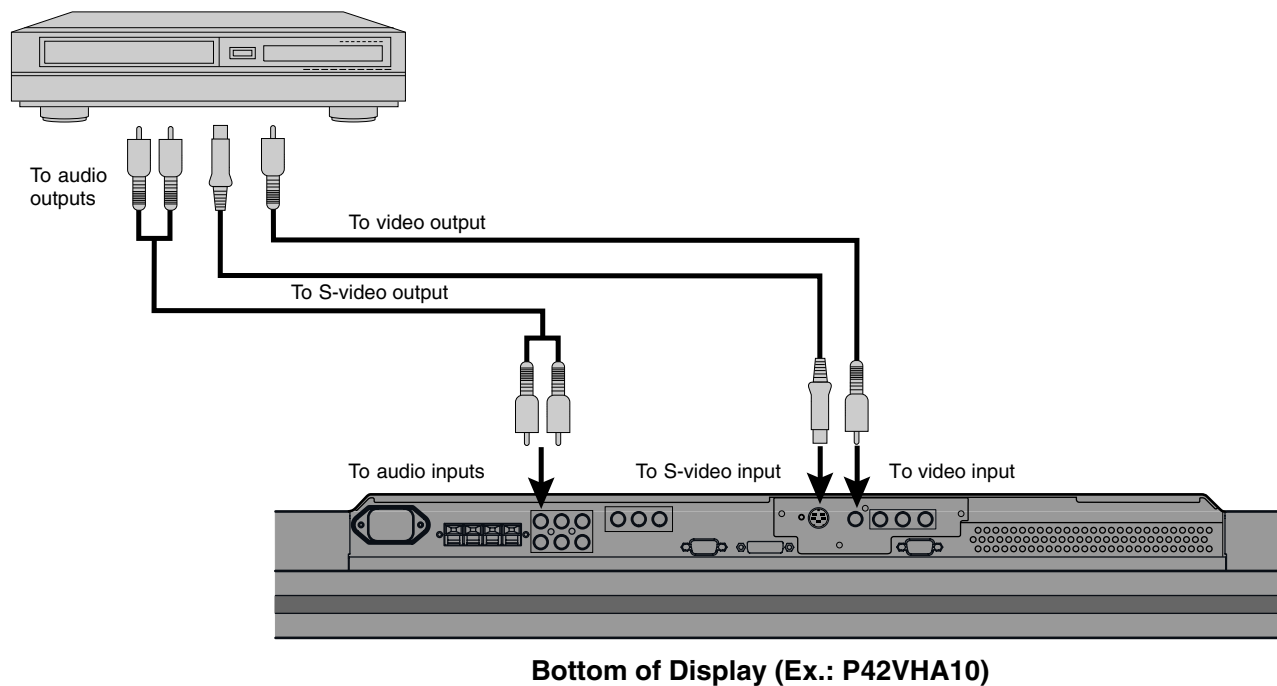




# Model : P42HHA10W

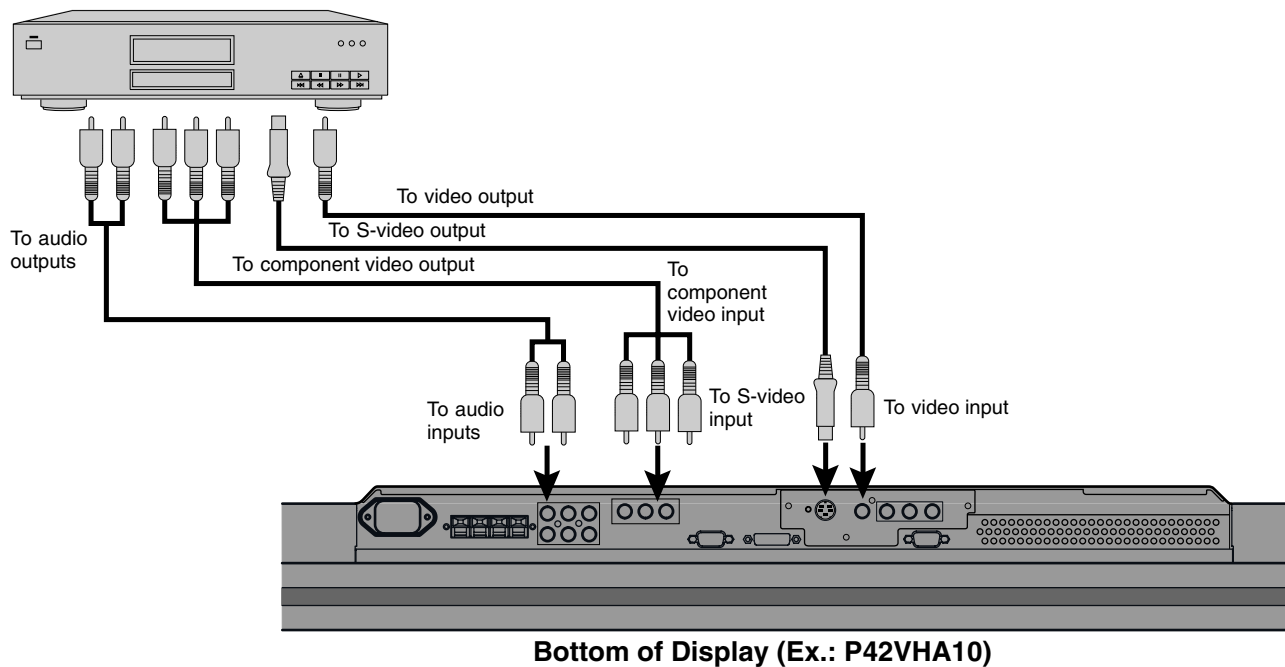
## VCR

- Connect the video signal cable to either the S-video input terminal or the video input terminal.



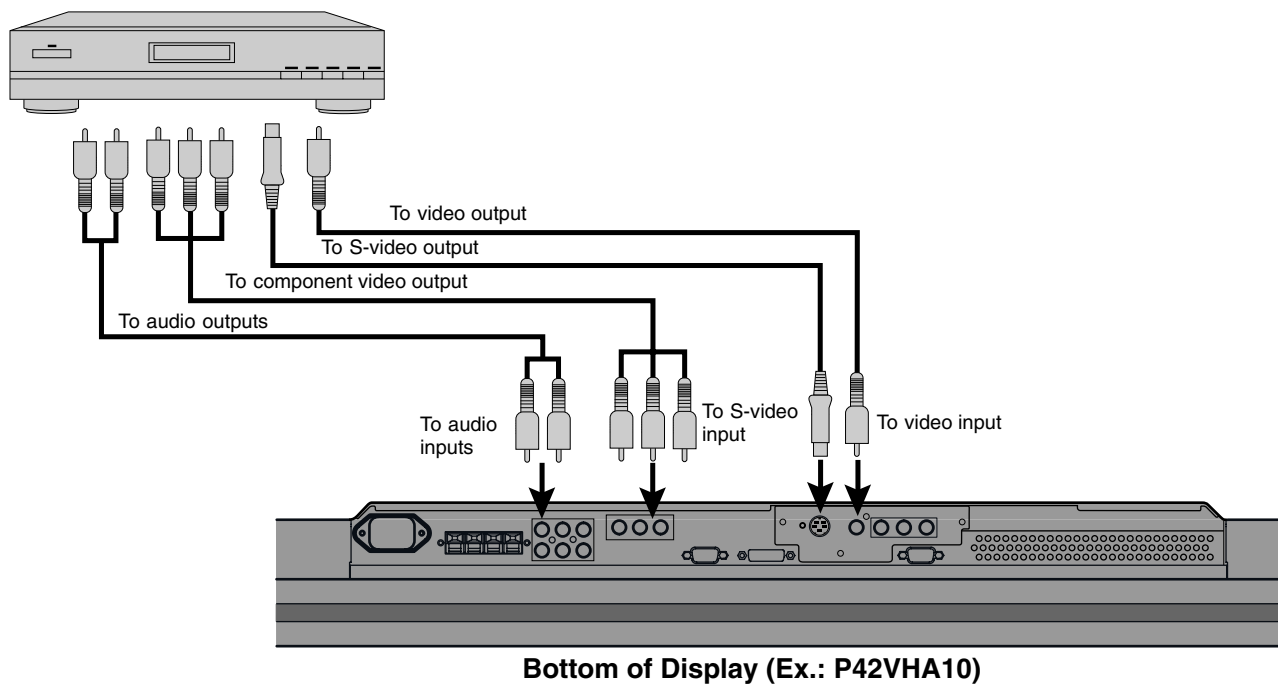
## DVD PLAYER

- Connect the video signal cable to the component video input terminal, S-video input terminal, or the video input terminal.
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.



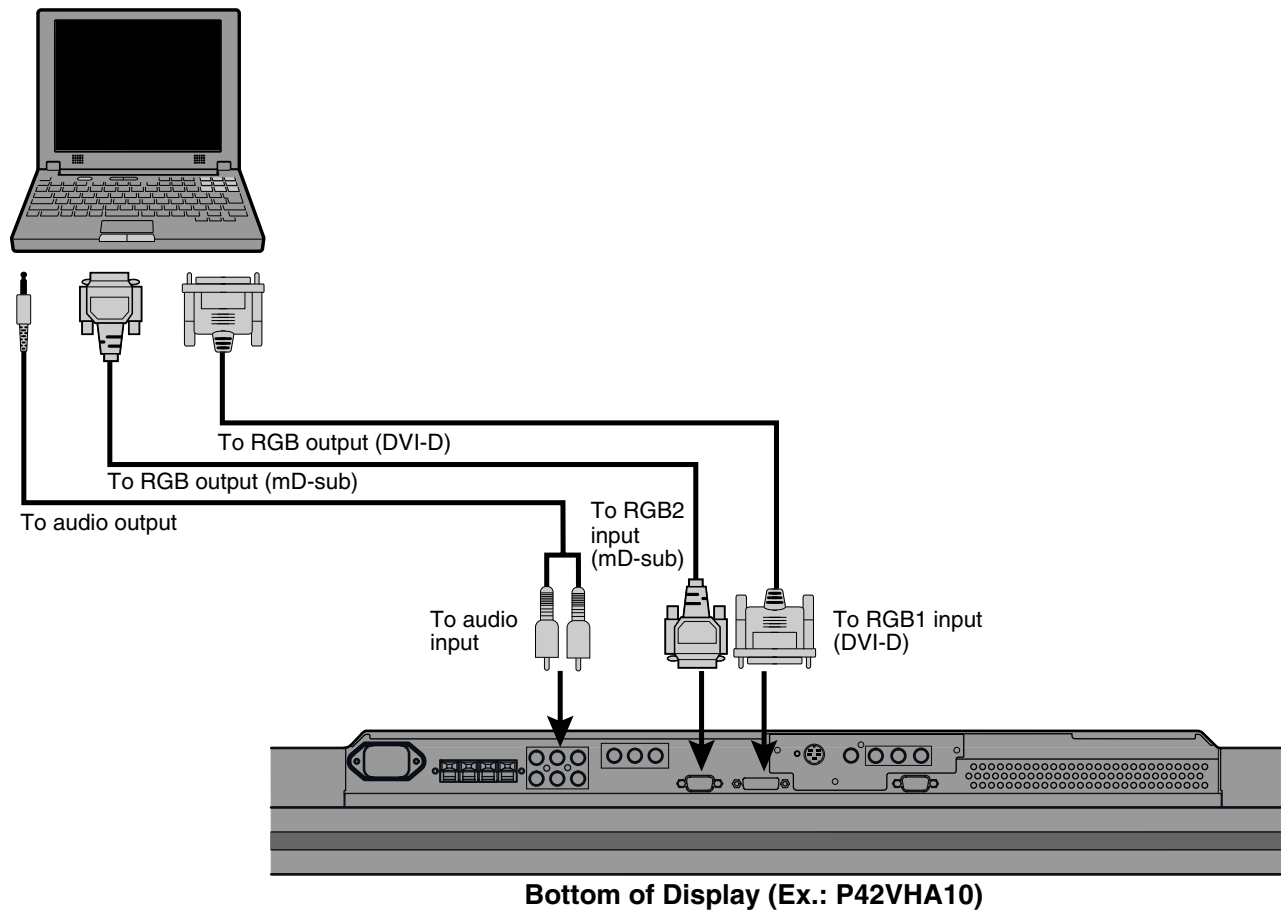
## SATELLITE TUNER

- Connect the video signal cable to the component video input terminal, S-video input terminal, or the video input terminal.
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.



## PC

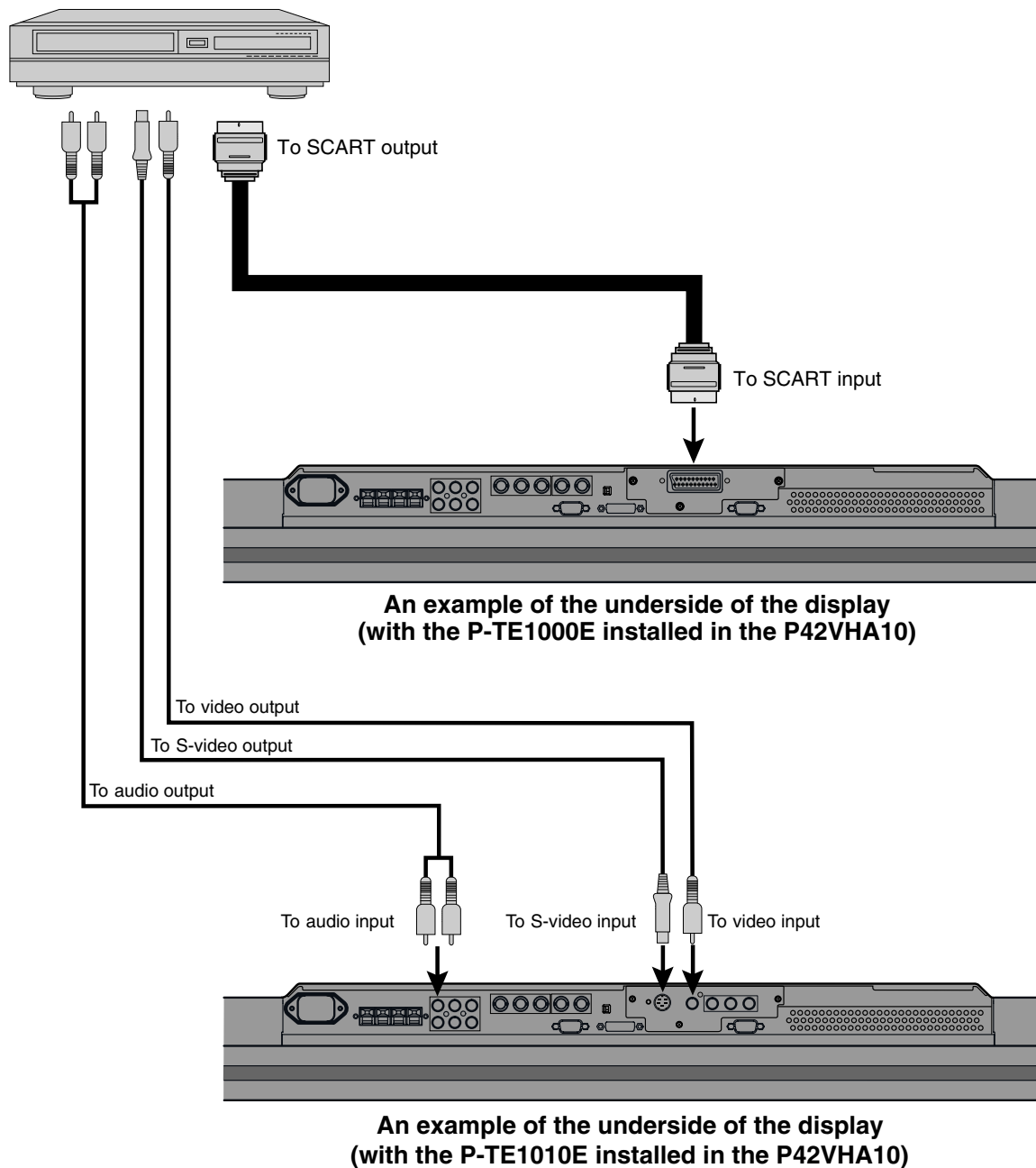
- As the cable for connecting a PC differs with the PC model, please consult your dealer for information on the right cable to purchase.
- The PC can be connected to either the front side or the rear side, whichever is most convenient.



# Model : P42HHA10E

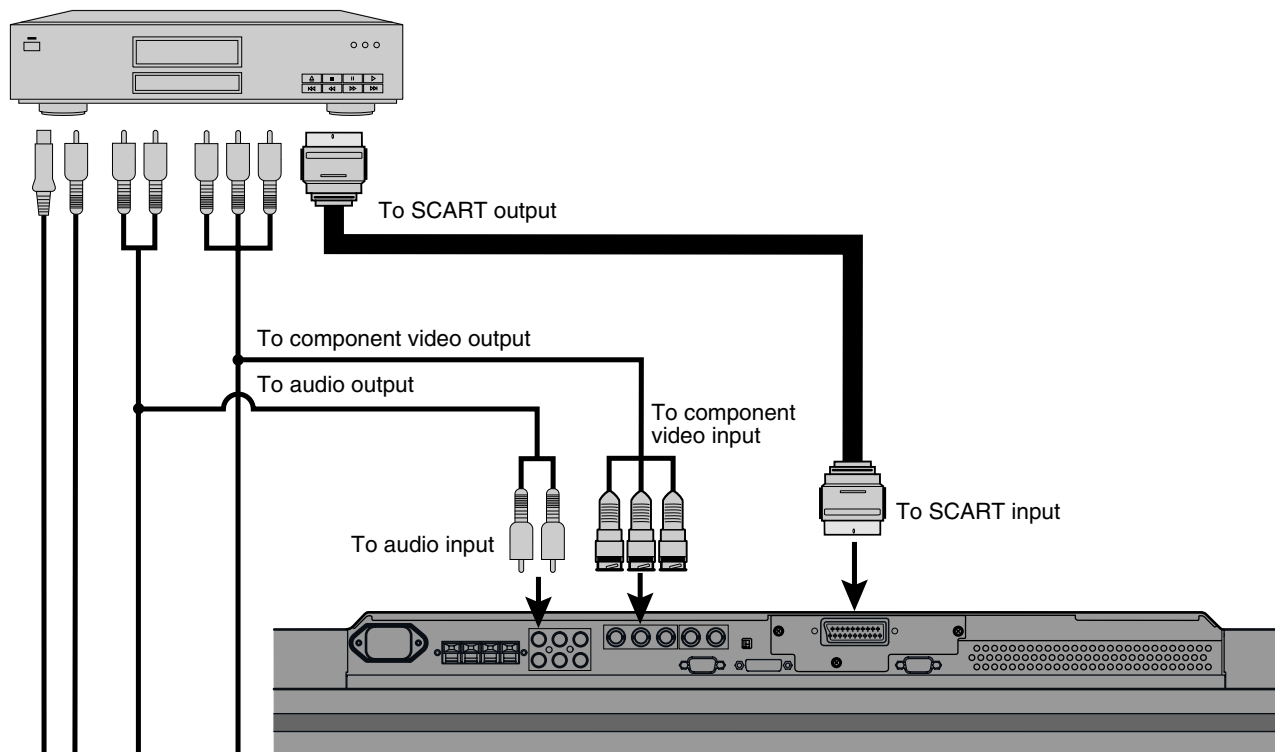
## VCR

- Connect the video signal cable to the SCART terminal. (When the P-TE1000E is installed.)
- Connect the video signal to either the S-video input terminal or the video input terminal. (When the P-TE1010E is installed.)

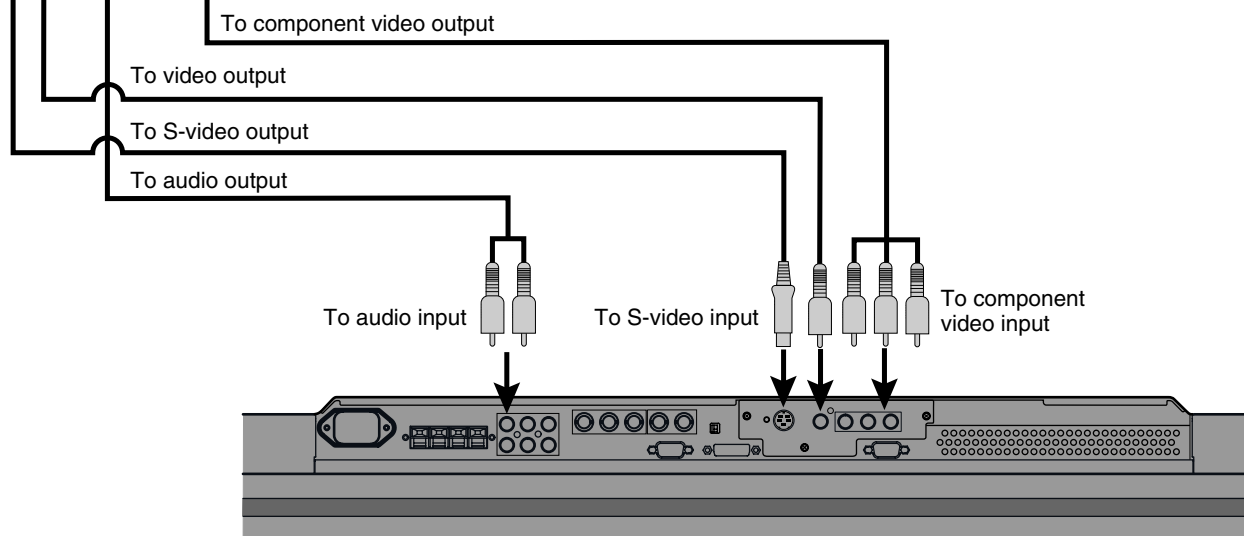


## DVD PLAYER

- Connect the video signal cable to either the component video terminal or the SCART terminal. (When the P-TE1000E is installed.)
- Connect the video signal cable to the component video input terminal, S-video input terminal, or the video input terminal. (When the P-TE1010E is installed.)
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.



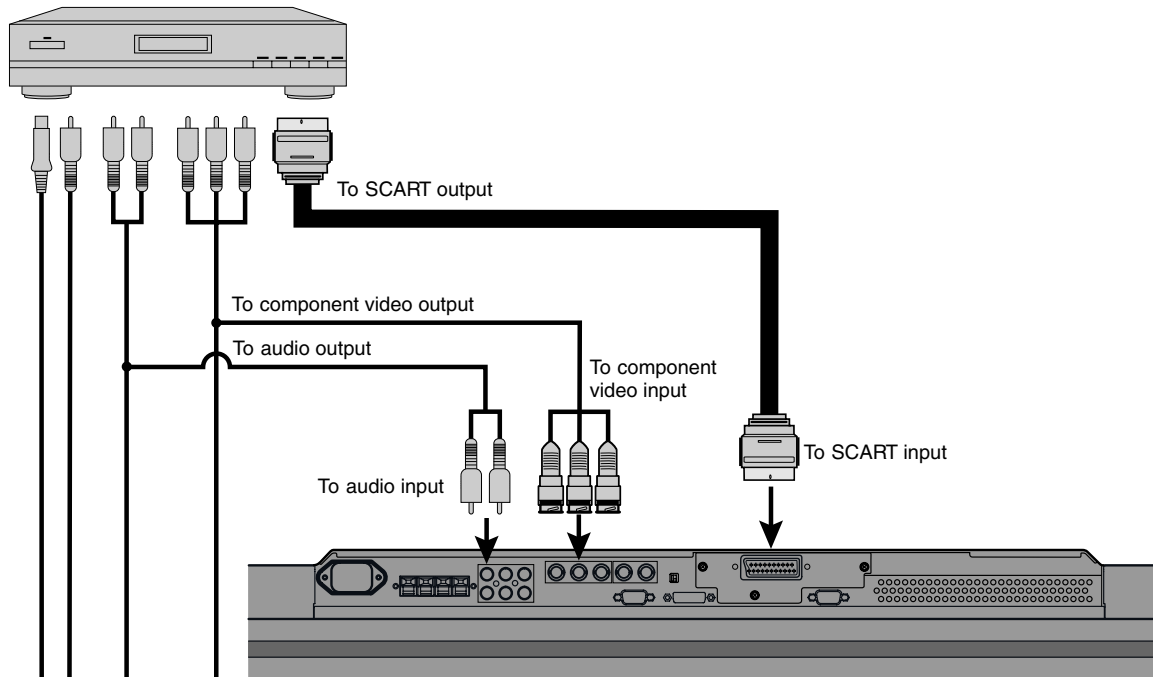
**An example of the underside of the display  
(with the P-TE1000E installed in the P42VHA10)**



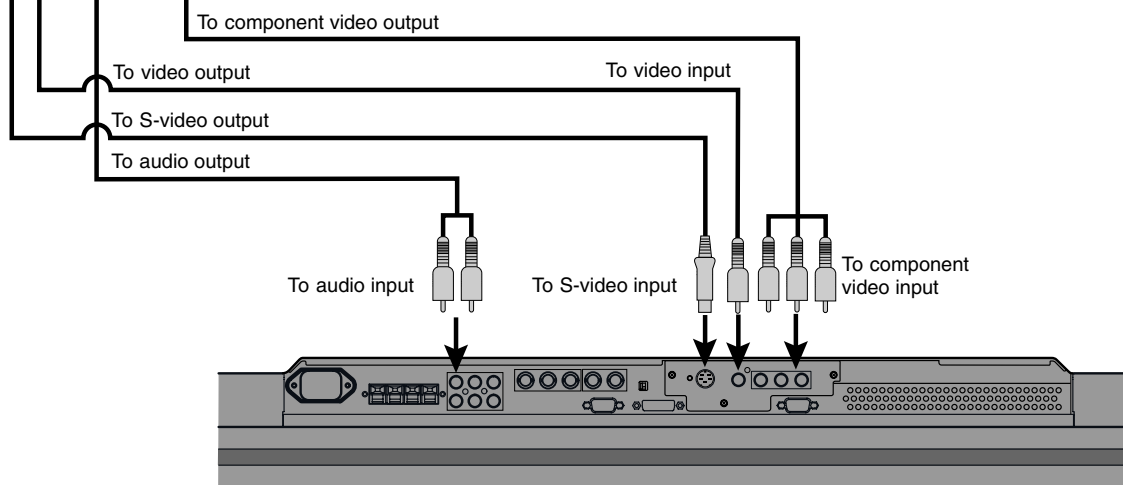
**An example of the underside of the display  
(with the P-TE1010E installed in the P42VHA10)**

## SATELLITE TUNER

- Connect the video signal cable to either the component video terminal or the SCART terminal. (When the P-TE1000E is installed.)
- Connect the video signal cable to the component video input terminal, S-video input terminal, or the video input terminal. (When the P-TE1010E is installed.)
- If the component to be connected is equipped with component video output terminal, it is recommended to connect to the component video terminal.



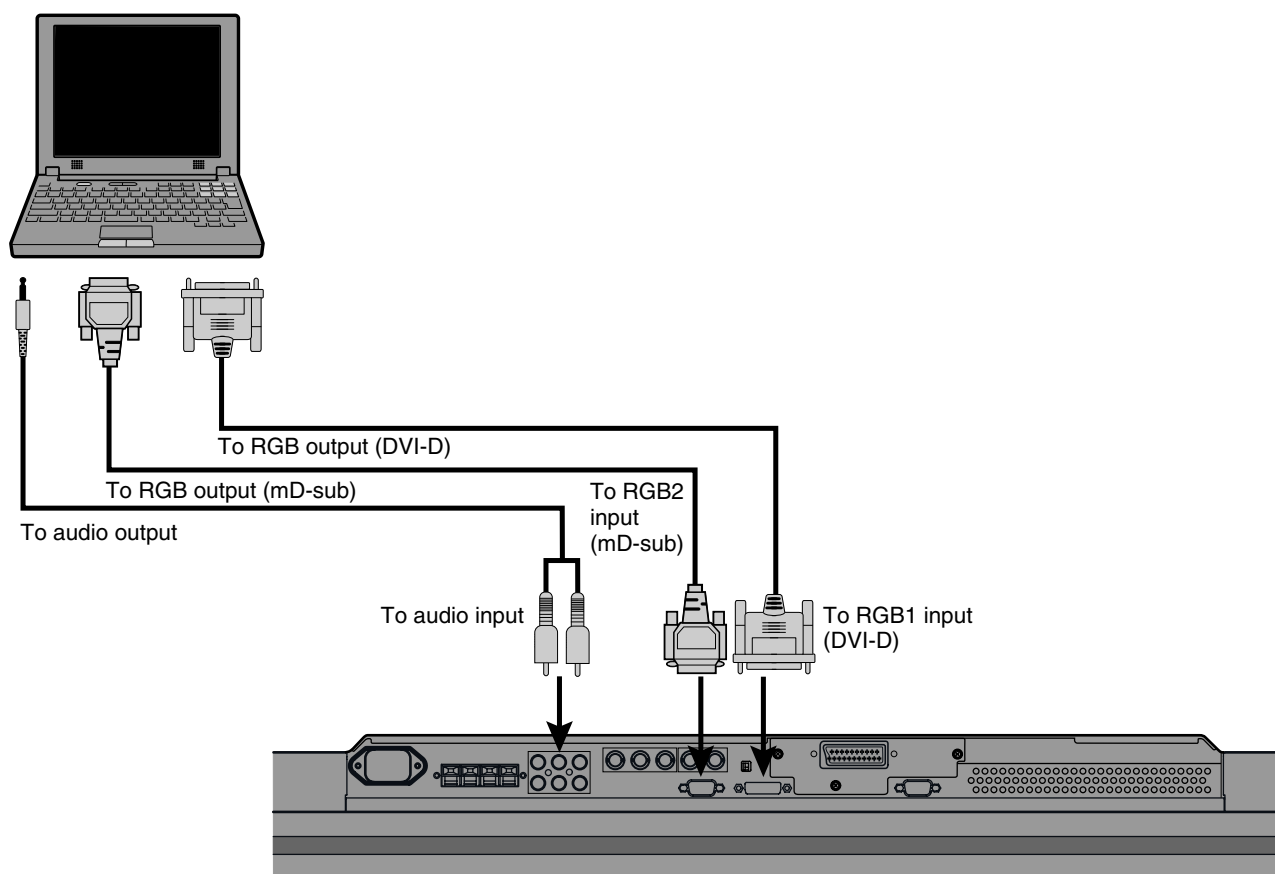
**An example of the underside of the display  
(with the P-TE1000E installed in the P42VHA10)**



**An example of the underside of the display  
(with the P-TE1010E installed in the P42VHA10)**

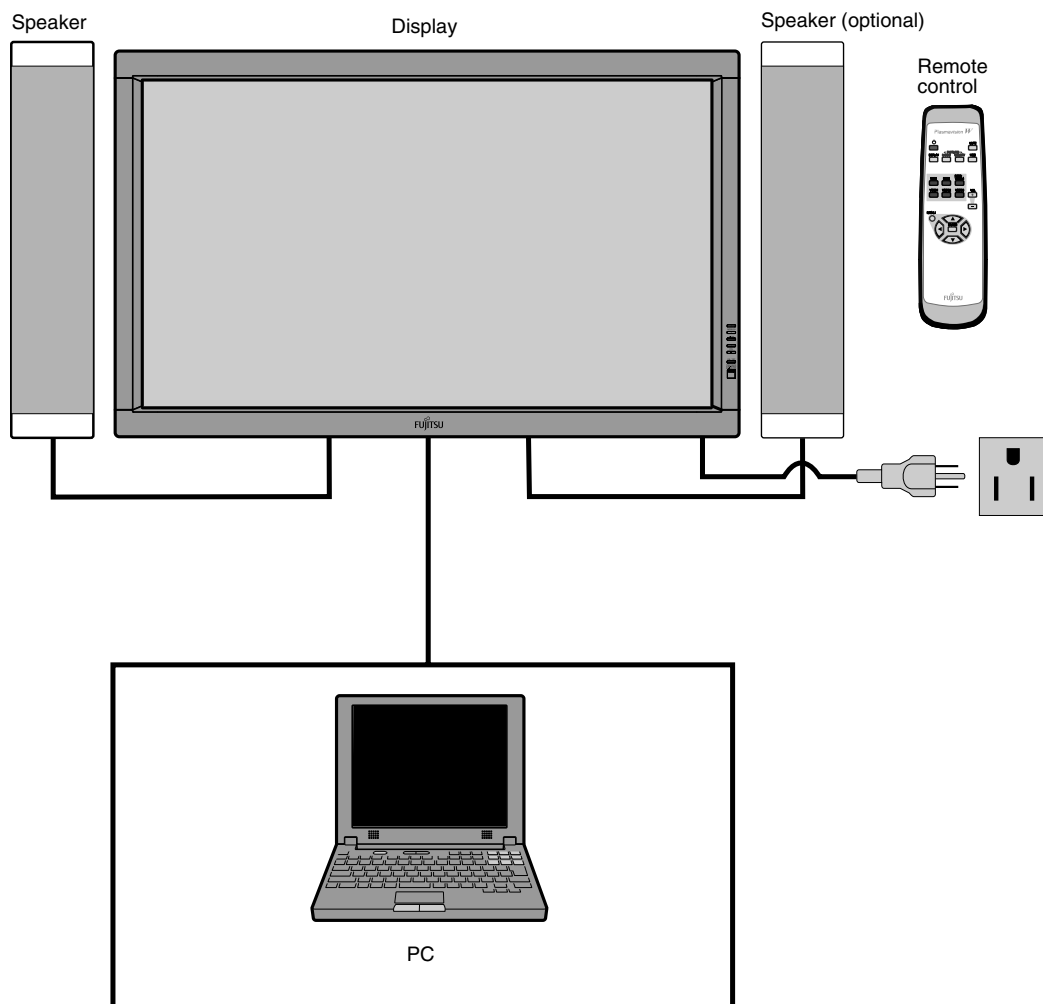
## PC

- As the cable for connecting a PC differs with the PC model, please consult your dealer for information on the right cable to purchase.
- The PC can be connected to either the front side or the rear side, whichever is most convenient.



**An example of the underside of the display  
(with the P-TE1000E installed in the P42VHA10)**

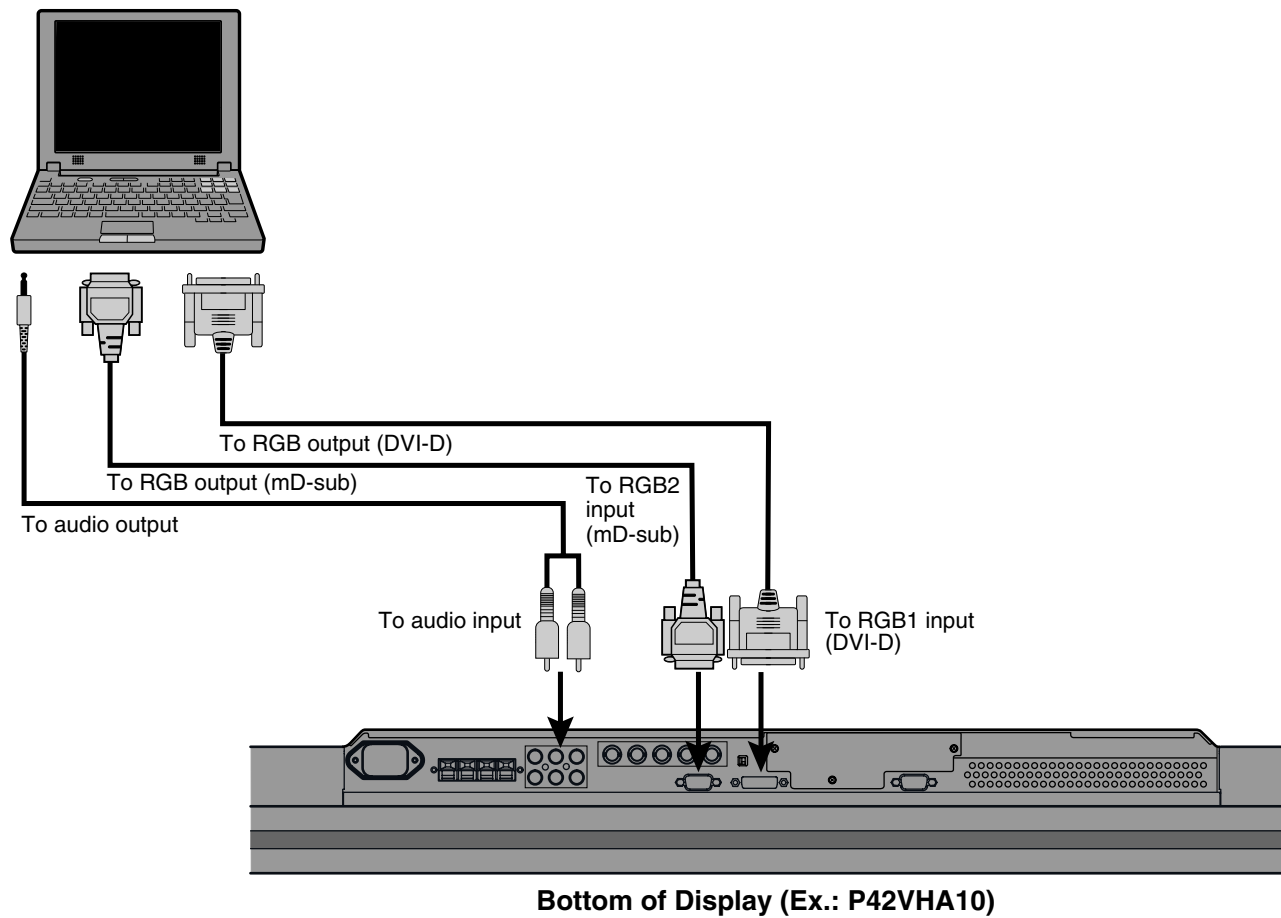
## EXAMPLE OF CONNECTION TO EXTERNAL COMPONENTS





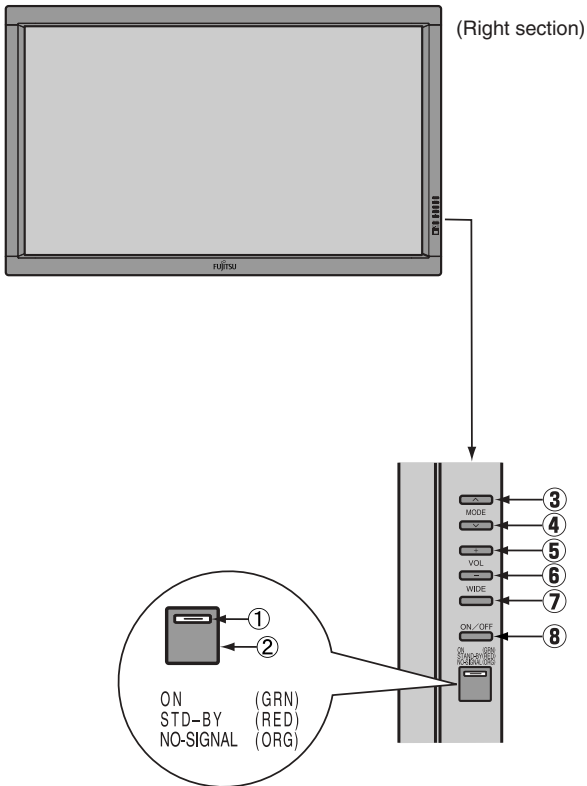
## PC

- As the cable for connecting a PC differs with the PC model, please consult your dealer for information on the right cable to purchase.
- The PC can be connected to either the front side or the rear side, whichever is most convenient.



# PART NAMES AND FUNCTIONS

## DISPLAY SECTION – FRONT



### ① Power indicator lamp

This lamp shows the state of the power supply.

Lit (red): Stand-by

Lit (green): Power ON

Lit (orange): Power saving (DPMS: Power saving function) mode ON

Flashing (red): Malfunction (Flashes differently depending on the type of malfunction.)

### ② Remote control signal receiver

Receives signals from the remote control.

### ③ Input mode selector button ▲[MODE]

### ④ Input mode selector button ▼[MODE]

Switches between picture input modes.

### ⑤ VOL + button

### ⑥ VOL - button

Adjusts the sound volume.

### ⑦ Wide screen selector button [WIDE]

Switches the screen over to a desired wide screen.

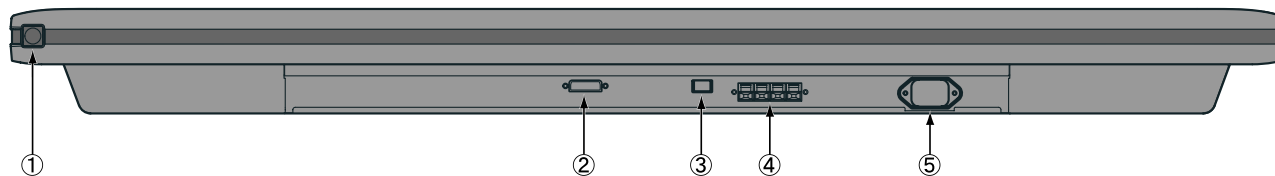
### ⑧ ON/OFF button

Turns the power "ON" and "OFF (standby state)".

## Control Panel (Right side of display)

## Model : P42HHS10W/E

### DISPLAY SECTION – LOWER PART



① **power switch**

When pressed while in the "OFF" state, the power indicator lamp lights and the display is placed in the "ON" state, and the power can be turned "ON" or "OFF" by the remote control or on the control panel of the display. When pressed while in the "ON" state, the power indicator lamp goes out and the display is placed in the "OFF" state.

② **Display input (picture) terminal**

Connect this terminal to the display output terminal on the tuner using the special cable provided.

③ **Display input (audio) terminal**

Connect this terminal to the display output terminal on the tuner using the special cable provided.

④ **External speaker output terminal (EXT SP)**

Connect this terminal to the optionally available speaker.

When connecting a cable, attach a ferrite core to the cable.

\*See the speaker's instruction manual for more information.

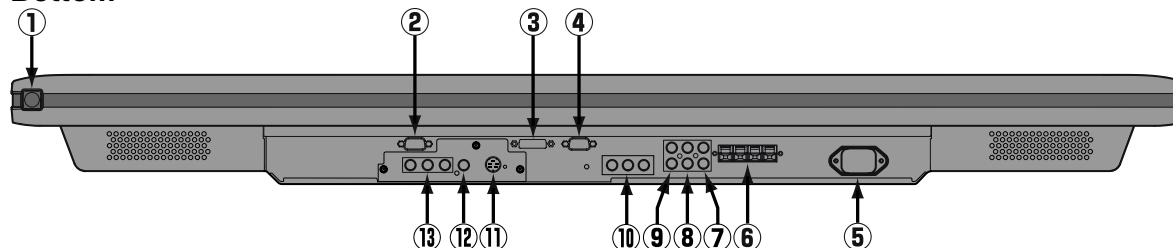
⑤ **Power input terminal**

Connect this terminal to the power cable supplied with the display.

# Model : P42HHA10W

## DISPLAY SECTION – LOWER PART

Bottom



① **⏻ power switch**

When pressed while in the "OFF" state, the power indicator lamp lights and the display is placed in the "ON ⏻" state, and the power can be turned "ON" or "OFF" by the remote control or on the control panel of the display. When pressed while in the "ON ⏻" state, the power indicator lamp goes out and the display is placed in the "OFF" state where power is still partly supplied.

② **RS-232C terminal (RS-232C)**

This terminal is provided for you to control the display from the PC. Connect it to the RS-232C terminal on the PC. When connecting a cable, attach a ferrite core to the cable.

③ **RGB1 input terminal (RGB1 INPUT/DVI-D)**

Connect this terminal to the PC's display (digital RGB) output terminal.

\*The connection cable No.88741-8000 made by **molex Inc.** is recommended.

④ **RGB2 input terminal (RGB2 INPUT/mD-sub)**

Connect this terminal to the PC's display (analog RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

⑤ **Power input terminal**

Connect this terminal to the power cable supplied with the display.

When connecting a cable, attach a ferrite core to the cable.

⑥ **External speaker output terminal (EXT SP)**

Connect this terminal to the optionally available speaker.

When connecting a cable, attach a ferrite core to the cable.

\*See the speaker instruction manual for more information.

⑦ **Audio1 input terminal (AUDIO1 INPUT)**

⑧ **Audio2 input terminal (AUDIO2 INPUT)**

⑨ **Audio3 input terminal (AUDIO3 INPUT)**

Connect this terminal to the sound output terminal of your VCR, etc.

⑩ **Component video input terminal (VIDEO3 INPUT)**

Connect this terminal to the component video output (color difference output) terminal of your HDTV unit or DVD player.

⑪ **S-Video input terminal (VIDEO2 INPUT)**

Connect this terminal to the S-video output terminal of your VCR.

⑫ **Video input terminal (VIDEO1 INPUT)**

Connect this terminal to the video output terminal of your VCR.

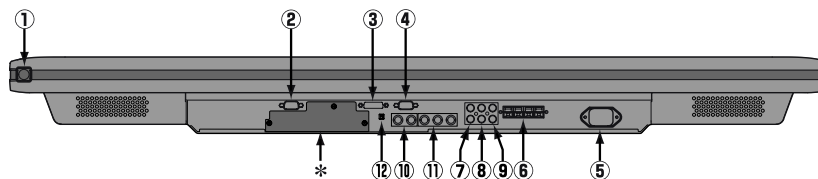
⑬ **Component video input terminal (VIDEO4 INPUT)**

Connect this terminal to the component video output (color difference output) terminal of your HDTV unit or DVD player.

# Model : P42HHA10E

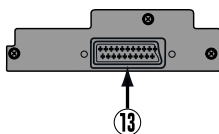
## DISPLAY SECTION - LOWER PART

### Bottom

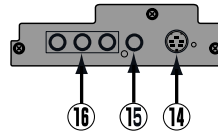


### \* Videoboard

#### P-TE1000E type



#### P-TE1010E type



#### ① ⏻ power switch

When pressed while in the "OFF" state, the power indicator lamp lights and the display is placed in the "ON ⏻" state, and the power can be turned "ON" or "OFF" by the remote control or on the control panel of the display. When pressed while in the "ON ⏻" state, the power indicator lamp goes out and the display is placed in the "OFF" state where power is still partly supplied.

#### ② RS-232C terminal (RS-232C)

This terminal is provided for you to control the display from the PC. Connect it to the RS-232C terminal on the PC. When connecting a cable, attach a ferrite core to the cable.

#### ③ RGB1 input terminal (RGB1 INPUT/DVI-D)

Connect this terminal to the PC's display (digital RGB) output terminal.

\*The connection cable No.88741-8000 made by **molex Inc.** is recommended.

#### ④ RGB2 input terminal (RGB2 INPUT/mD-sub)

Connect this terminal to the PC's display (analog RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

#### ⑤ Power input terminal

Connect this terminal to the power cable supplied with the display.

When connecting a cable, attach a ferrite core to the cable.

#### ⑥ External speaker output terminal (EXT SP)

Connect this terminal to the optionally available speaker.

When connecting a cable, attach a ferrite core to the cable.

\*See the speaker instruction manual for more information.

#### ⑦ Audio3 input terminal (AUDIO3 INPUT)

#### ⑧ Audio2 input terminal (AUDIO2 INPUT)

#### ⑨ Audio1 input terminal (AUDIO1 INPUT)

Connect this terminal to the sound output terminal of your VCR, etc.

#### ⑩+ ⑪ RGB3 input terminal (RGB3 INPUT/BNC)

Connect this terminal to the PC's display (analog RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

\*When RGB3 input terminal is connected, Comp.video mode is not available.

#### ⑪ Component video input terminal (VIDEO4 INPUT)

Connect this terminal to the component video output (colour difference output) terminal of your HDTV unit or DVD player.

\*When Comp.video input terminal is connected, RGB3 mode is not available.

#### ⑫ RGB3 synchronization switch (SYNC SW TTL/ANALOG (75 Ω))

This switch is used to terminate horizontal (H) terminal and vertical (V) terminal, out of RGB3 input terminals, with 75 Ω.

■ TTL : Does not terminate.

■ ANALOG (75 Ω): Terminates.

#### \* ⑬ Video1 input terminal (VIDEO1 INPUT/P-TE1000E)

Connect this terminal to the SCART terminal of your VCR or DVD, etc.

#### \* ⑭ S-Video input terminal (VIDEO2 INPUT/P-TE1010E)

Connect this terminal to the S-video output terminal of your VCR.

#### \* ⑮ Video input terminal (VIDEO1 INPUT/P-TE1010E)

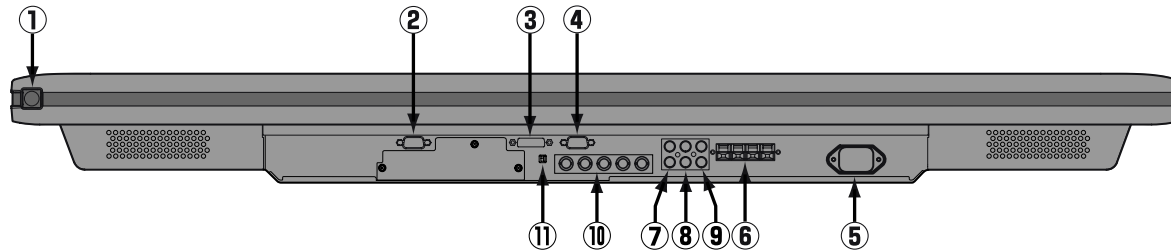
Connect this terminal to the video output terminal of your VCR.

#### \* ⑯ Component video input terminal (VIDEO3 INPUT/P-TE1010E)

Connect this terminal to the component video output (colour difference output) terminal of your HDTV unit or DVD player.

## DISPLAY SECTION – LOWER PART

### Bottom



① **⏻ power switch**

When pressed while in the "OFF" state, the power indicator lamp lights and the display is placed in the "ON ⏻" state, and the power can be turned "ON" or "OFF" by the remote control or on the control panel of the display. When pressed while in the "ON ⏻" state, the power indicator lamp goes out and the display is placed in the "OFF" state where power is still partly supplied.

② **RS-232C terminal (RS-232C)**

This terminal is provided for you to control the display from the PC. Connect it to the RS-232C terminal on the PC. When connecting a cable, attach a ferrite core to the cable.

③ **RGB1 input terminal (RGB1 INPUT/DVI-D)**

Connect this terminal to the PC's display (digital RGB) output terminal.  
\*The connection cable No.88741-8000 made by **molex Inc.** is recommended.

④ **RGB2 input terminal (RGB2 INPUT/mD-sub)**

Connect this terminal to the PC's display (analog RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

⑤ **Power input terminal**

Connect this terminal to the power cable supplied with the display.  
When connecting a cable, attach a ferrite core to the cable.

⑥ **External speaker output terminal (EXT SP)**

Connect this terminal to the optionally available speaker.  
When connecting a cable, attach a ferrite core to the cable.  
\*See the speaker instruction manual for more information.

⑦ **Audio3 input terminal (AUDIO3 INPUT)**

⑧ **Audio2 input terminal (AUDIO2 INPUT)**

⑨ **Audio1 input terminal (AUDIO1 INPUT)**

Connect this terminal to the sound output terminal of your VCR, etc.

⑩ **RGB3 input terminal (RGB3 INPUT/BNC)**

Connect this terminal to the PC's display (analog RGB) output terminal.

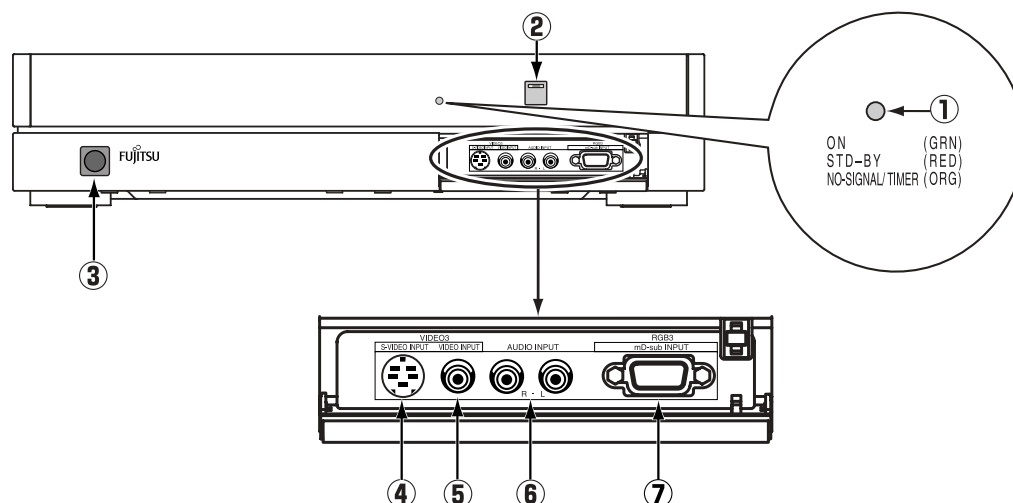
⑪ **RGB3 synchronization switch (SYNC SW TTL/ANALOG (75 Ω))**

This switch is used to terminate horizontal (H) terminal and vertical (V) terminal, out of RGB3 input terminals, with 75 Ω.

☐ TTL : Does not terminate.  
☐ ANALOG (75 Ω) : Terminates.

# Model : P42HHS10W/E

## SELECTOR SECTION – FRONT



### ① Power indicator lamp

This lamp shows the state of the power supply.

Lit (red): Stand-by

Lit (green): Power ON

Lit (orange): Power saving (DPMS: Power saving function) mode ON

Flashing (red): Malfunction

### ② Remote control signal receiver

Receives signals from the remote control.

### ③ POWER button

Turns the power "ON" and "OFF".

\* Even when the power is "OFF", some parts are still powered.

### ④ Video3, S-video input terminal \*

Connect this terminal to the S-video output terminal of your VCR, etc.

### ⑤ Video3, video input terminal \*

Connect this terminal to the video output terminal of your VCR, etc.

### ⑥ Audio input terminals (L/R)

These are the audio input terminals for the Video3 and RGB3 terminals.

Input the audio for the video to be seen here.

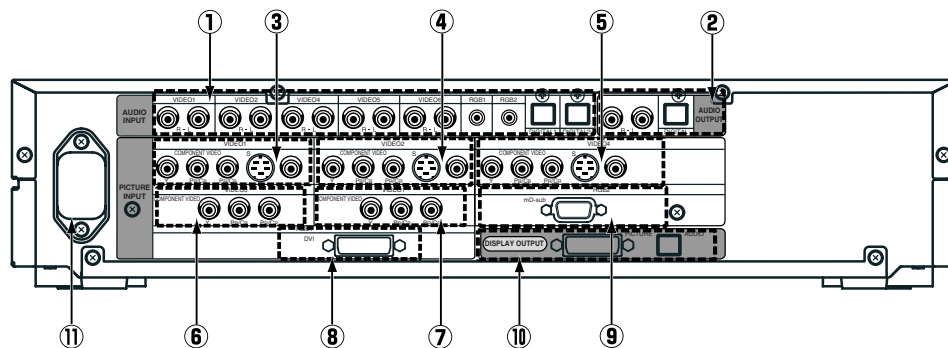
### ⑦ RGB3 input terminal

Connect this terminal to your PC's mD-sub output terminal.

\* On selecting the video input format

# Model : P42HHS10W

## SELECTOR SECTION – REAR



### ① Audio input terminals

Input audio through the terminals corresponding to the used video input terminals.

The digital input terminals can be matched as desired with the remote control.

### ② Audio output terminals

For use when the sound from an audio system (amplifier) is used.

### ③ Video1 input terminal

### ④ Video2 input terminal

### ⑤ Video4 input terminal

Connect this terminal to the component video output terminal, S-video output terminal, or video output terminal of your VCR or DVD, etc.

### ⑥ Video5 input terminal

### ⑦ Video6 input terminal

Connect this terminal to the component video output terminal of your DVD, etc.

### ⑧ RGB1 input terminal

Connect this terminal to the monitor (DVI-D) output terminal of your PC.

### ⑨ RGB2 input terminal

Connect this terminal to the monitor (mD-sub) output terminal of your PC.

### ⑩ Display output terminals (Picture/Audio)

Connect these terminals to the picture input terminal and audio input terminals on the display.

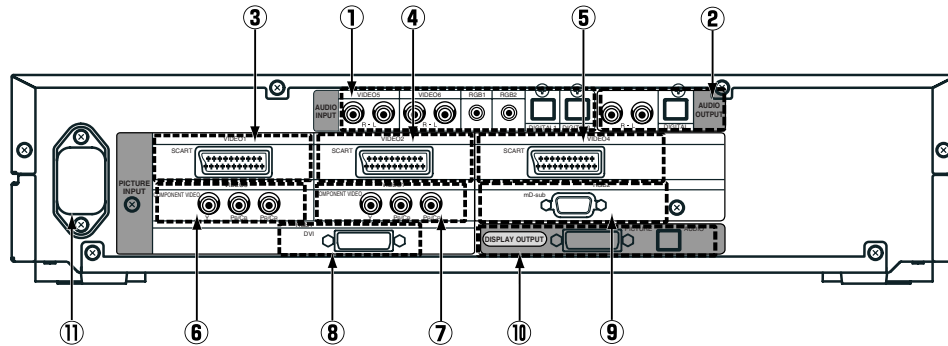
### ⑪ Power input terminal

Connect this terminal to the power cable supplied with the display.



# Model : P42HHS10E

## SELECTOR SECTION – REAR



### ① Audio input terminals

Input audio through the terminals corresponding to the used video input terminals.

\* The digital input terminals can be matched as desired with the remote control.

### ② Audio output terminals

For use when the sound from an audio system (amplifier) is used.

### ③ Video1 input terminal

### ④ Video2 input terminal

### ⑤ Video4 input terminal

Connect this terminal to the SCART terminal of your VCR or DVD, etc.

### ⑥ Video5 input terminal

### ⑦ Video6 input terminal

Connect this terminal to the component video output terminal of your DVD, etc.

### ⑧ RGB1 input terminal

Connect this terminal to the monitor (DVI-D) output terminal of your PC.

### ⑨ RGB2 input terminal

Connect this terminal to the monitor (mD-sub) output terminal of your PC.

### ⑩ Display output terminals (Picture/Audio)

Connect these terminals to the picture input terminal and audio input terminals on the display.

### ⑪ Power input terminal

Connect this terminal to the power cable supplied with the display.

# Model : P42HHS10W/E

## REMOTE CONTROL

### ① **Power button**

Switches between power ON and standby state.

### ④ **DISPLAY OFF button**

For showing on-screen-information.

### ⑤ **PICTURE MODE button**

Switches the picture mode.

### ⑧ **AUDIO IN button**

Selects the input audio.

### ⑩ **Video input mode selector button [VIDEO 1 - 6]**

Selects VIDEO 1 - 6

### ⑪ **RGB input mode selector button [RGB 1 - 3]**

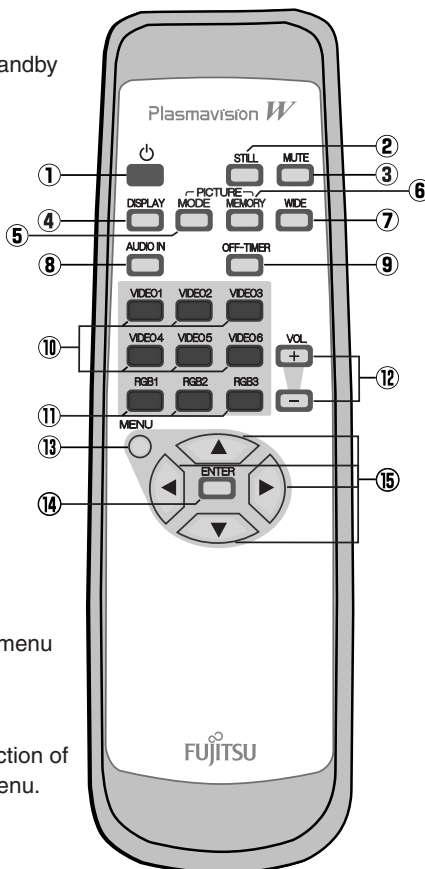
Selects RGB 1 - 3.

### ⑬ **Menu button [MENU]**

Use this button to display a desired menu for adjusting the picture.

### ⑭ **Enter button [ENTER]**

Press this button to finalize the selection of a desired menu or option within a menu.



### ② **STILL button**

Displays a still picture during viewing.

### ③ **MUTE button**

Temporarily mutes the sound.

### ⑥ **PICTURE MEMORY button**

Recalls the PICTURE MEMORY.

### ⑦ **WIDE button**

Switches the screen over to a desired wide screen.

### ⑨ **OFF-TIMER**

Sets when the power should be turned off.

### ⑫ **Volume adjustment buttons [VOL +/-]**

Adjust the volume.

Press the + button to increase the volume.

Press the - button to reduce the volume.

### ⑮ **Adjustment buttons [ ◀ / ▶ / ▲ / ▼ ]**

Use these buttons to scroll through options in a menu.

# Model : P42HHA10W/E

## REMOTE CONTROL

### ① **Power button**

Switches between power ON and standby state.

### ③ **DISPLAY OFF button**

For showing on-screen-information.

### ④ **PICTURE MODE button**

Switches the picture mode.

### ⑦ **RGB input mode selector button [RGB 1 - 2]**

Selects RGB 1 - 2.

### ⑨ **Video input mode selector button [VIDEO 1 - 3]**

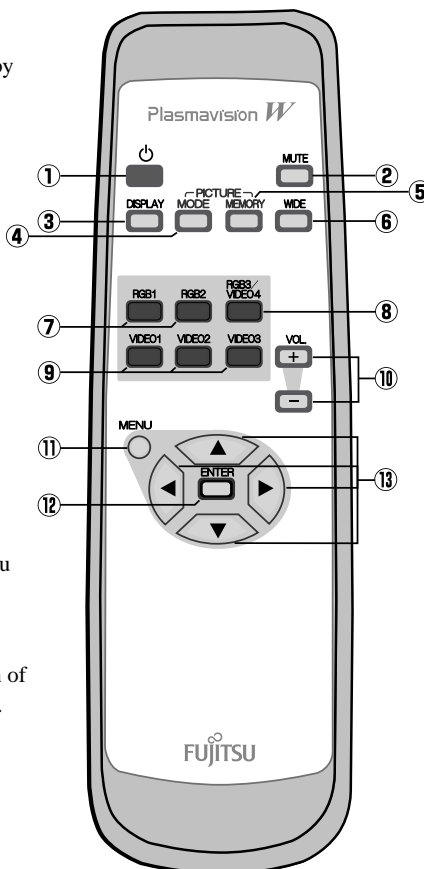
Selects VIDEO 1 - 3.

### ⑪ **Menu button [MENU]**

Use this button to display a desired menu for adjusting the picture.

### ⑫ **Enter button [ENTER]**

Press this button to finalize the selection of a desired menu or option within a menu.



### ② **MUTE button**

Temporarily mutes the sound.

### ⑤ **PICTURE MEMORY button**

Recalls the PICTURE MEMORY.

### ⑥ **WIDE button**

Switches the screen over to a desired wide screen.

### ⑧ **RGB3/VIDEO4 input mode selector button [RGB3/VIDEO4]**

Selects RGB3 or VIDEO4.

### ⑩ **Volume adjustment buttons [VOL +/-]**

Adjust the volume.

Press the + button to increase the volume.

Press the - button to reduce the volume.

### ⑬ **Adjustment buttons [◀/▶/▲/▼]**

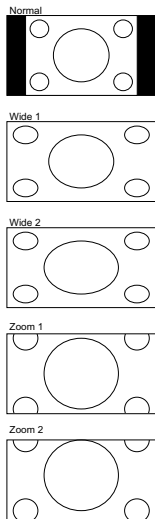
Use these buttons to scroll through options in a menu.

# VIDEO MODE ADJUSTMENT

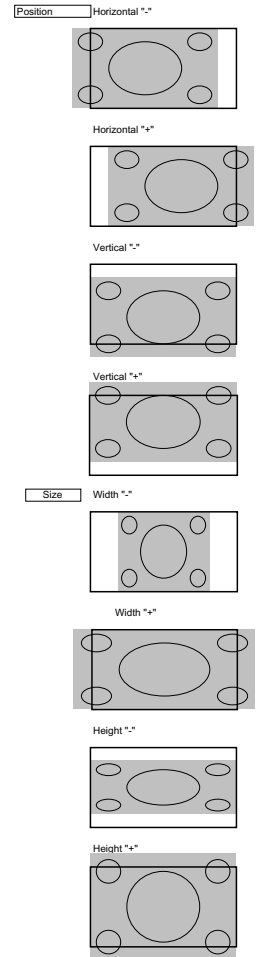
## Model : P42HHS10W/E

### REMOTE CONTROLLER

OK
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 4
VIDEO 5
VIDEO 6
RGB 1
RGB 2
RGB 3
VOL +
VOL -
STILL
MUTE
DISPLAY
PICTURE MODE
PICTURE MEMORY
AUDIO IN
OFF-TIMER
WIDE



MENU	PICTURE	Contrast	(-30 to +30)
ENTER		Brightness	(-60 to +60)
		Color	(-60 to +60)
		Tint	(-30 to +30)
		Sharpness	(-16 to +16)
		Picture Mode	Dynamic Fine Real 1 Real 2 Static
		Precision Setting	Luminance (40 to 100%) Black Level (-15 to +15) Colour Temp. (-3500 to +3500) User Color Temp. (Red (0 to 255), Green (0 to 255), Blue (0 to 255))
		Noise Reduction	Off Min. Std. Max.
		Picture Memory	Load (Memory 1 to Memory 8) Save
		Default	Yes No
	POSITION/SIZE	Position	Horizontal (-30 to +30 (Comp. video -16 to +16)) Vertical (-7 to +7 (Zoom -15 to +15) (Comp. video -16 to +16))
		Size	Width (-3 to +12 (Comp. video -2 to +16)) Height (-3 to +12 (Comp. video -2 to +16))
		Default	Yes No
	AUDIO	Treble	(-6 to +6)
		Bass	(-6 to +6)
		Balance	(-10 to +10)
		Loudness	Off Min. Mid. Max.
	FEATURES	Adjustment*	Clamp Position* (-8 to +8) *Only Comp. Video
		Function	24 Frame Mode (On/Off) Jaggies Filter (On/Off)
		On Screen Menu	OSD (On(OSD : bright), On(OSD : dark), Off) Language (日本語, English, Deutsch, Español, Français, Italiano, Português) Name Select (Video, RGB)
		Input Terminal	Video Input 1, 2, 3, 4 (Video input, Video Format (Auto 1, Auto 2, NTSC, PAL, SECAM, PAL60, N-PAL, M-PAL, 4.43NTSC)) DVI Input (DVI 1, DVI 2)
		Others	Power saver (Auto Off - UNTOUCH, Auto Off - NO SIG.) (Off/On) White Screen (On/Off) Exhibition Mode (On/Off) Illumination (On/Off) Information (Mode, Freq, Scan Mode, Input Signal, Freq.)
FACTORY DEFAULT	Executes		Yes No

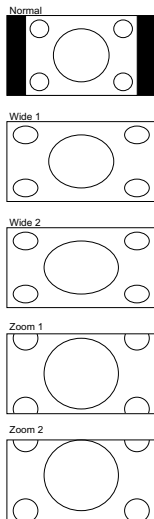


# VIDEO MODE ADJUSTMENT

## Model : P42HHA10W/E

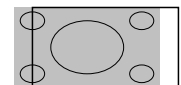
### REMOTE CONTROLLER

OK
VIDEO 1
VIDEO 2
VIDEO 3
RGB 1
RGB 2
RGB 3 / VIDEO 4
VOL. +
VOL. -
MUTE
DISPLAY
PICTURE MODE
PICTURE MEMORY
WIDE

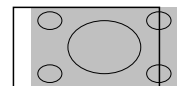


MENU	PICTURE	Contrast	(-30 to +30)
ENTER		Brightness	(-60 to +60)
		Color	(-60 to +60)
		Tint	(-30 to +30 (Comp. video -60 to +60))
		Sharpness	(-16 to +16)
		Picture Mode	Dynamic Fine Real 1 Real 2 Static
		Precision Setting	Luminance (40 to 100%) Black Level (-15 to +15) Colour Temp. (-3500 to +3500) User Color Temp. (Red (0 to 255), Green (0 to 255), Blue (0 to 255))
		Noise Reduction	Off Min. Std. Max.
		Picture Memory	Load (Memory 1 to Memory 8) Save
		Default	Yes No
	POSITION/SIZE	Position	Horizontal (-30 to +30 (Comp. video -16 to +16)) Vertical (-7 to +7 (Zoom -15 to +15) (Comp. video -16 to +16))
		Size	Width (-3 to +12 (Comp. video -2 to +16)) Height (-3 to +12 (Comp. video -2 to +16))
		Default	Yes No
	AUDIO	Treble	(-6 to +6)
		Bass	(-6 to +6)
		Balance	(-10 to +10)
		Loudness	On Off
	FEATURES	Adjustment	Clamp Position* (-8 to +8) *Only Comp. Video
		Function	24 Frame Mode (On/Off)
		On Screen Menu	OSD (On(OSD - bright), On(OSD - dark), Off) Language (Japanese, English, Deutsch, Español, Français, Italiano, Português) Name Select (RGB 1 to RGB 2, Video 1 to Video 4, PC 1 to PC 2, DVD 1 to DVD 2, VCR 1 to VCR 2, GAME, Camcorder, STB, Satellite, Cable TV)
		Input Terminal	Video Input (Auto 1 to Auto 2, NTSC, PAL, SECAM, PAL60, AL-PAL, M-PAL, 4.43NTSC) S-video Input D-SUB Input (RGB-PC, Decoder, Mask (Off, 5, 10, 15)) DVI Input (DVI 1, DVI 2)
		Others	Audio Input (RGB 1 to RGB 2, Video 1 to Video 4, No Audio, Audio 1, Audio 2, Audio 3) White Screen (On/Off) Exhibition Mode (On/Off) Information (Mode, Freq. Scan Mode, Input Signal, Freq.)
	FACTORY DEFAULT	Execute	Yes No

### Position



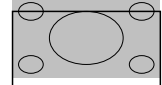
### Horizontal \*



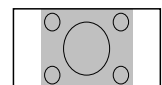
### Vertical \*



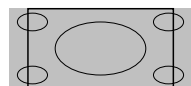
### Vertical \*



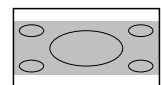
### Size



### Width \*



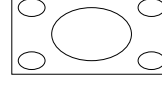
### Height \*



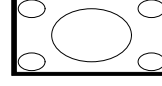
### Height \*



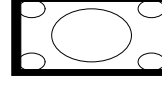
### Mask Off



### Mask 5



### Mask 10

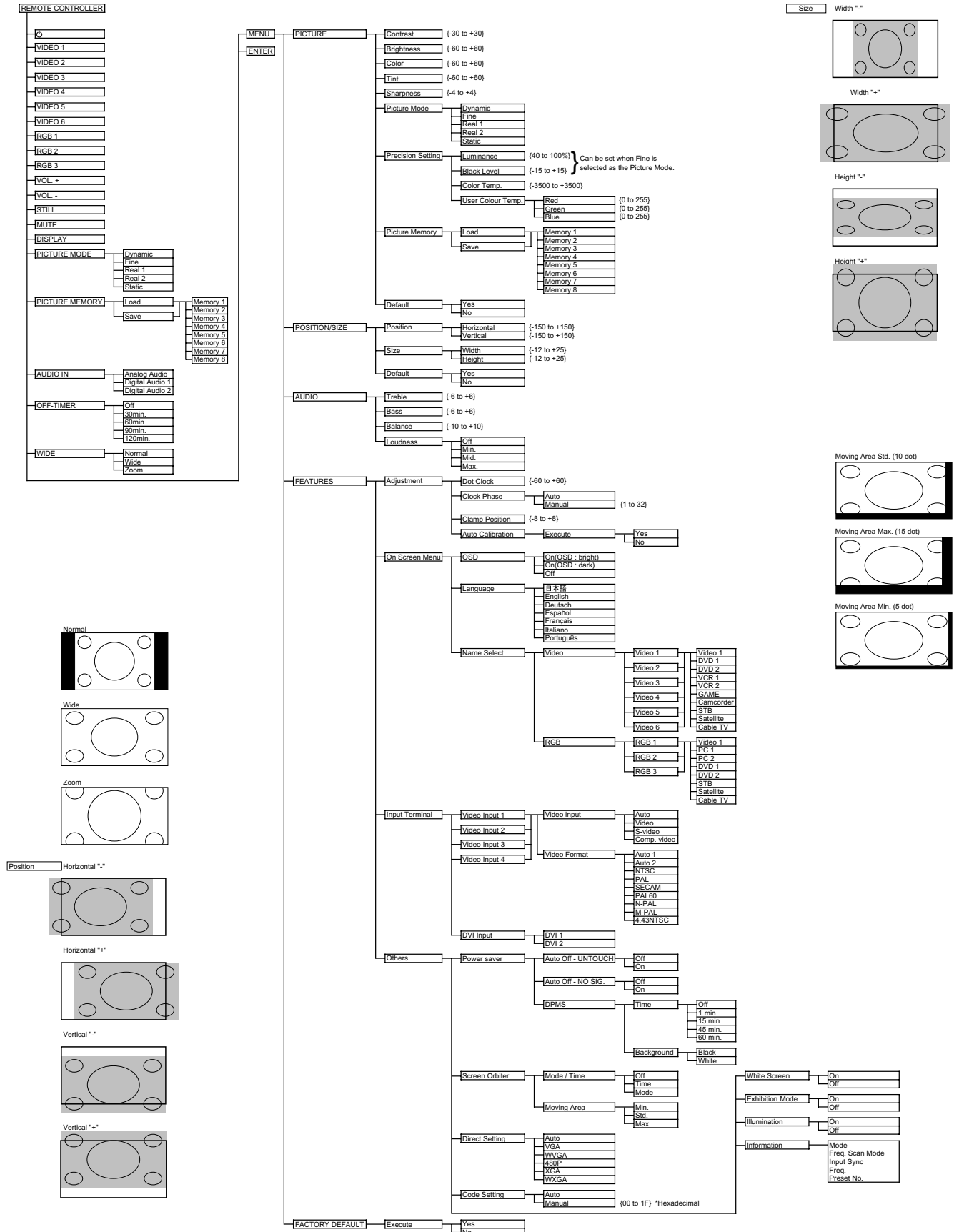


### Mask 15



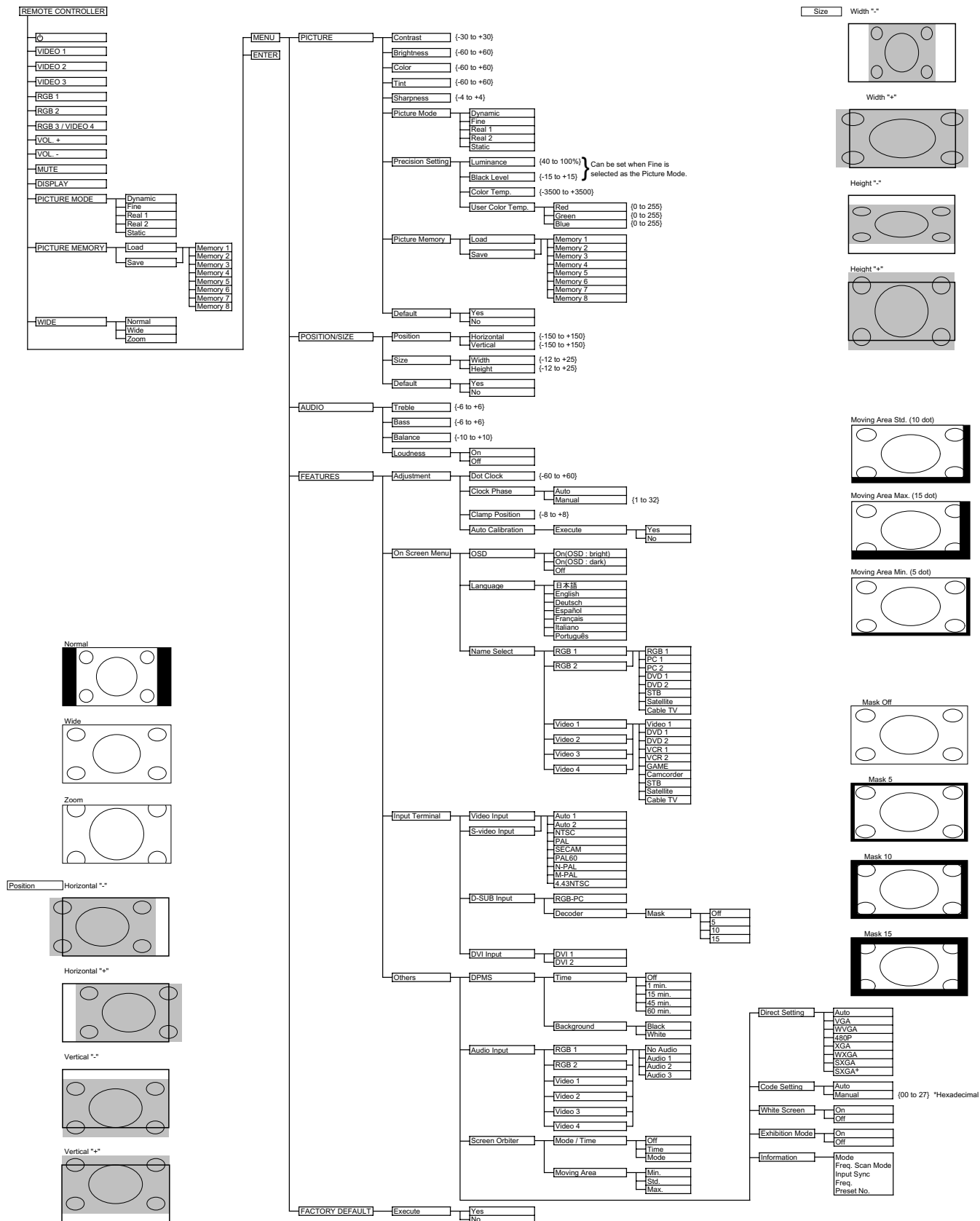
# RGB MODE ADJUSTMENT

## Model : P42HHS10W/E



# RGB MODE ADJUSTMENT

## Model : P42HHA10W/E



# TROUBLESHOOTING USING LED AND OSD

## 1. Display

### (1) OSD

Three kinds of error messages are displayed on the screen, and the power is turned off 10 sec later.

### (2) LED

LED error is displayed continuously after the power is turned off.

## 2. Error types and check points

### (1) OSD

On screen display	Cause	Check point
ERROR MESSAGE CONDITION 1	Fan protector operated	<ul style="list-style-type: none"> <li>● Fan (Display unit)</li> <li>● Main power PCB (Display unit)</li> <li>● Main PCB (Display unit)</li> </ul>
ERROR MESSAGE CONDITION 2	Temperature protector operated	<ul style="list-style-type: none"> <li>● Ambient temperature of unit</li> <li>● Main PCB (Display unit)</li> <li>● Temp. sensor IC757 (Display unit)</li> </ul>
ERROR MESSAGE CONDITION 3	EEPROM error	<ul style="list-style-type: none"> <li>● Main PCB (Display unit)</li> <li>● Main(Digital/Video) PCB (Selector unit)</li> </ul>

### (2) LED

#### Display

LED lamp display status	Cause	Check point
Steady light (Red)	Stand-by status	—
<b>Continuous</b> Flashes continuously (Red)	No power Power supply protector operated	<ul style="list-style-type: none"> <li>● Main power PCB</li> <li>● PDP panel</li> </ul>
<b>1 time</b> Flashes once every 4 sec. (Red)	Fan protector operated	<ul style="list-style-type: none"> <li>● Fan</li> <li>● Main power PCB</li> <li>● Main PCB</li> </ul>
<b>2 times</b> Flashes twice every 5 sec. (Red)	Temperature protector operated PDP panel AC error	<ul style="list-style-type: none"> <li>● Ambient temperature of unit</li> <li>● Temperature sensor IC757</li> <li>● Main PCB</li> <li>● Panel AC</li> </ul>
<b>3 times</b> Flashes three times every 6 sec. (Red)	EEPROM error	<ul style="list-style-type: none"> <li>● Main PCB</li> </ul>
<b>5 times</b> Flashes five times every 8 sec. (Red)	Audio circuit faulty	<ul style="list-style-type: none"> <li>● Audio PCB Assy</li> </ul>

#### Selector unit

LED lamp display status	Cause	Check point
Steady light (Red)	Stand-by status	—
<b>Continuous</b> Flashes continuously (Red)	No power Power supply protector operated	<ul style="list-style-type: none"> <li>● Main power PCB</li> </ul>
—	—	—
<b>3 times</b> Flashes three times every 6 sec. (Red)	EEPROM error	<ul style="list-style-type: none"> <li>● Main(Digital/Video) PCB</li> </ul>
<b>4 times</b> Flashes four times every 7 sec. (Red)	Main(Digital) circuit faulty	<ul style="list-style-type: none"> <li>● Main(Digital) PCB</li> </ul>
<b>5 times</b> Flashes five times every 8 sec. (Red)	Audio circuit faulty	<ul style="list-style-type: none"> <li>● Audio PCB Assy</li> </ul>



# Model : P42HHA10W/E

## 1. Display

### (1) OSD

Three kinds of error messages are displayed on the screen, and the power is turned off 10 sec later.

### (2) LED

LED error is displayed continuously after the power is turned off.

## 2. Error types and check points

### (1) OSD

On screen display	Cause	Check point
ERROR MESSAGE CONDITION 1	Fan protector operated	<ul style="list-style-type: none"><li>● Fan</li><li>● Main power PCB</li><li>● Main/Digital PCB</li></ul>
ERROR MESSAGE CONDITION 2	Temperature protector operated	<ul style="list-style-type: none"><li>● Ambient temperature of unit</li><li>● Main/Digital PCB</li><li>● Temp. sensor IC757</li></ul>

### (2) LED

LED lamp display status	Cause	Check point
Steady light (Red)	Stand-by status	—
<b>Continuous</b> Flashes continuously (Red)	No power Power supply protector operated	<ul style="list-style-type: none"><li>● Main power PCB</li><li>● PDP panel</li></ul>
<b>1 time</b> Flashes once every 4 sec. (Red)	Fan protector operated	<ul style="list-style-type: none"><li>● Fan</li><li>● Main power PCB</li><li>● Main/Digital PCB</li></ul>
<b>2 times</b> Flashes twice every 5 sec. (Red)	Temperature protector operated	<ul style="list-style-type: none"><li>● Ambient temperature of unit</li><li>● Temperature sensor IC757</li><li>● Main/Digital PCB</li></ul>
<b>4 times</b> Flashes four times every 7 sec. (Red)	Main/Digital circuit faulty	<ul style="list-style-type: none"><li>● Main/Digital PCB</li></ul>
<b>5 times</b> Flashes five times every 8 sec. (Red)	Video circuit faulty	<ul style="list-style-type: none"><li>● Video PCB Assy</li></ul>

# TROUBLESHOOTING FLOWCHART

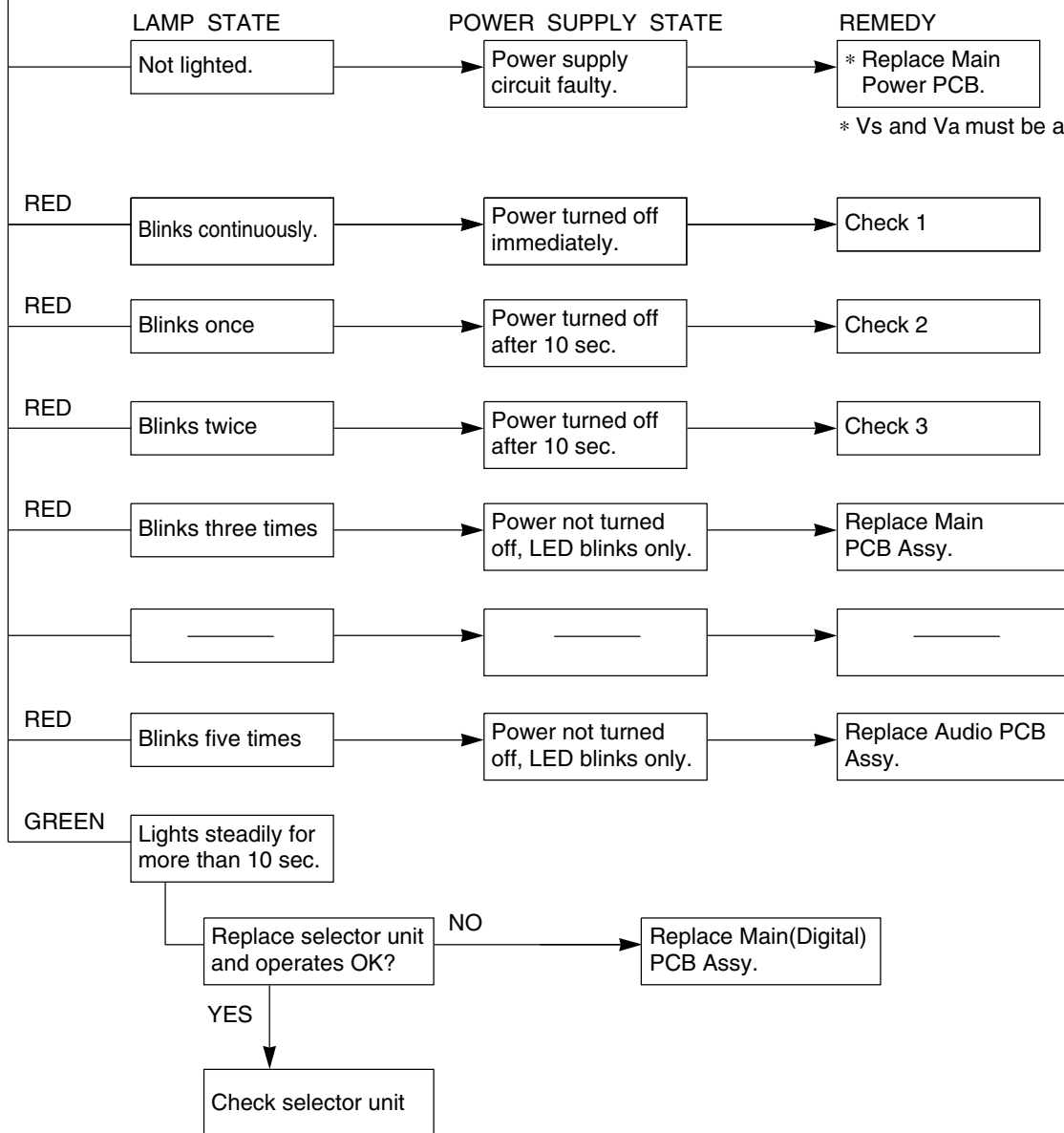
Model : P42HHS10W/E

## LED lamp blinking

Note : 1. Since a voltage is applied to the Main Power PCB heat sinks while the set is operating, do not touch the heat sinks.

Display unit

Turn power on and check state of lamp.



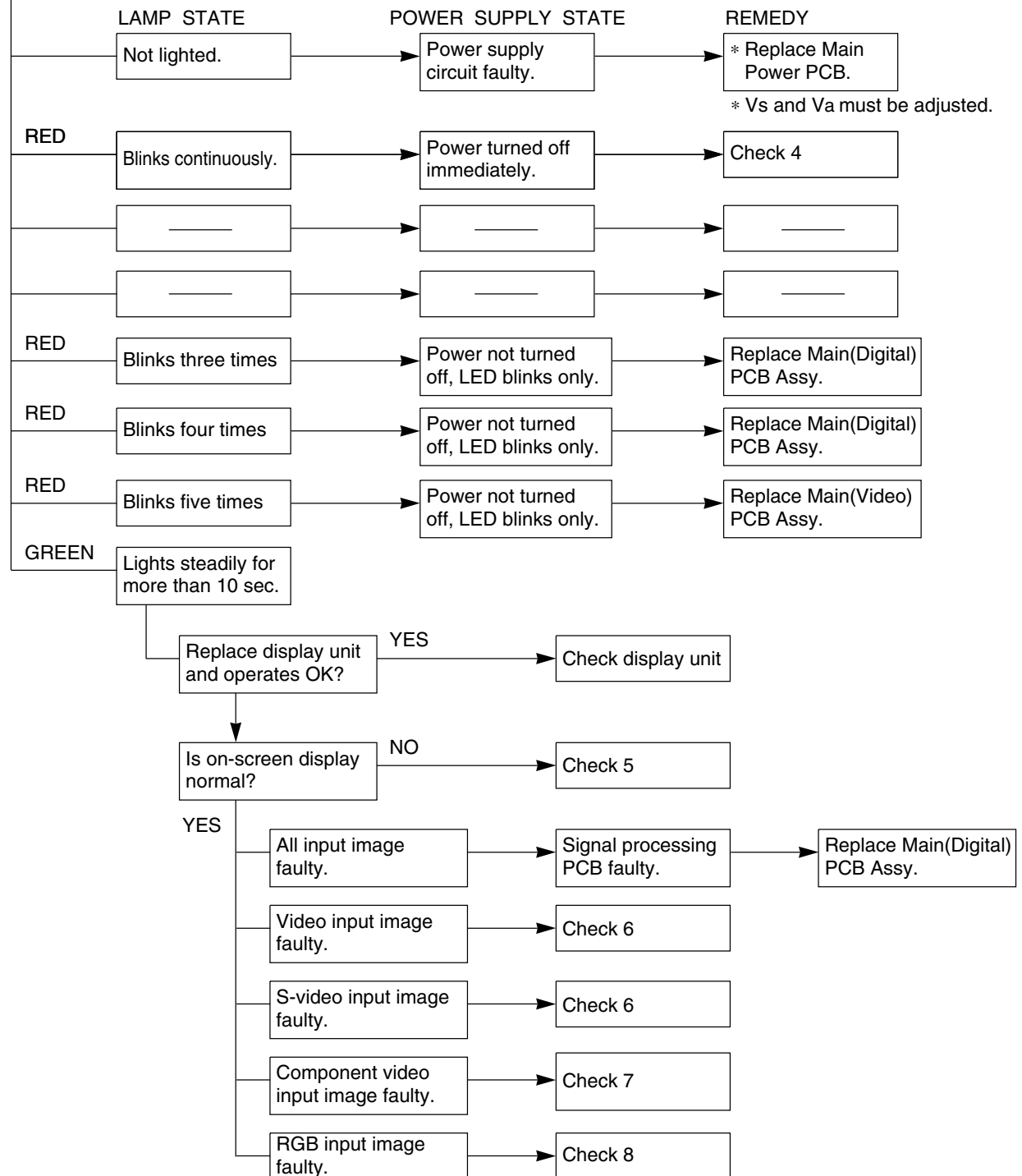
# Model : P-SU4H10W/E

## LED lamp blinking

Note : 1. Since a voltage is applied to the Main Power PCB heat sinks while the set is operating, do not touch the heat sinks.

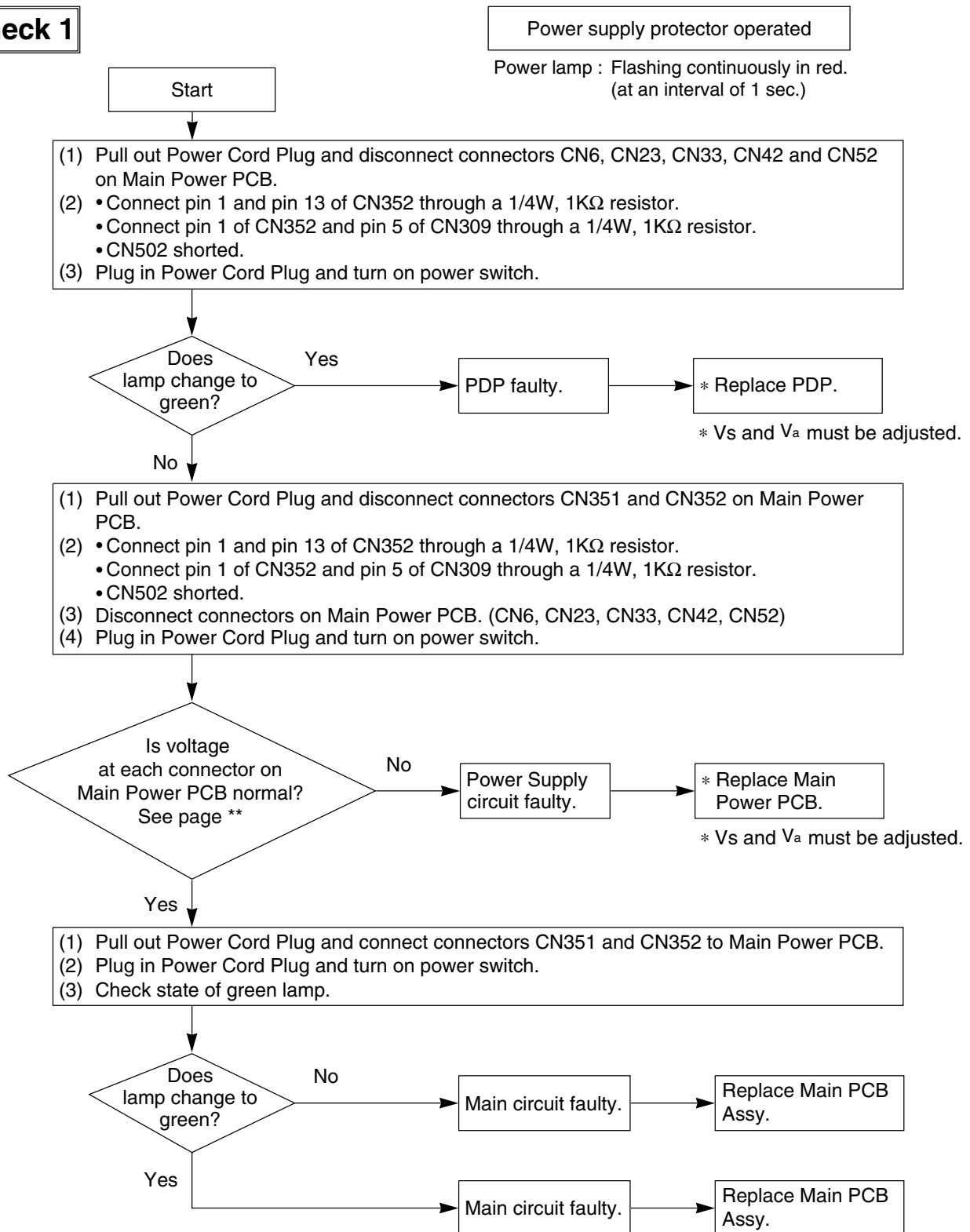
Selector unit

Turn power on and check state of lamp.



# Model : P42HHS10W/E

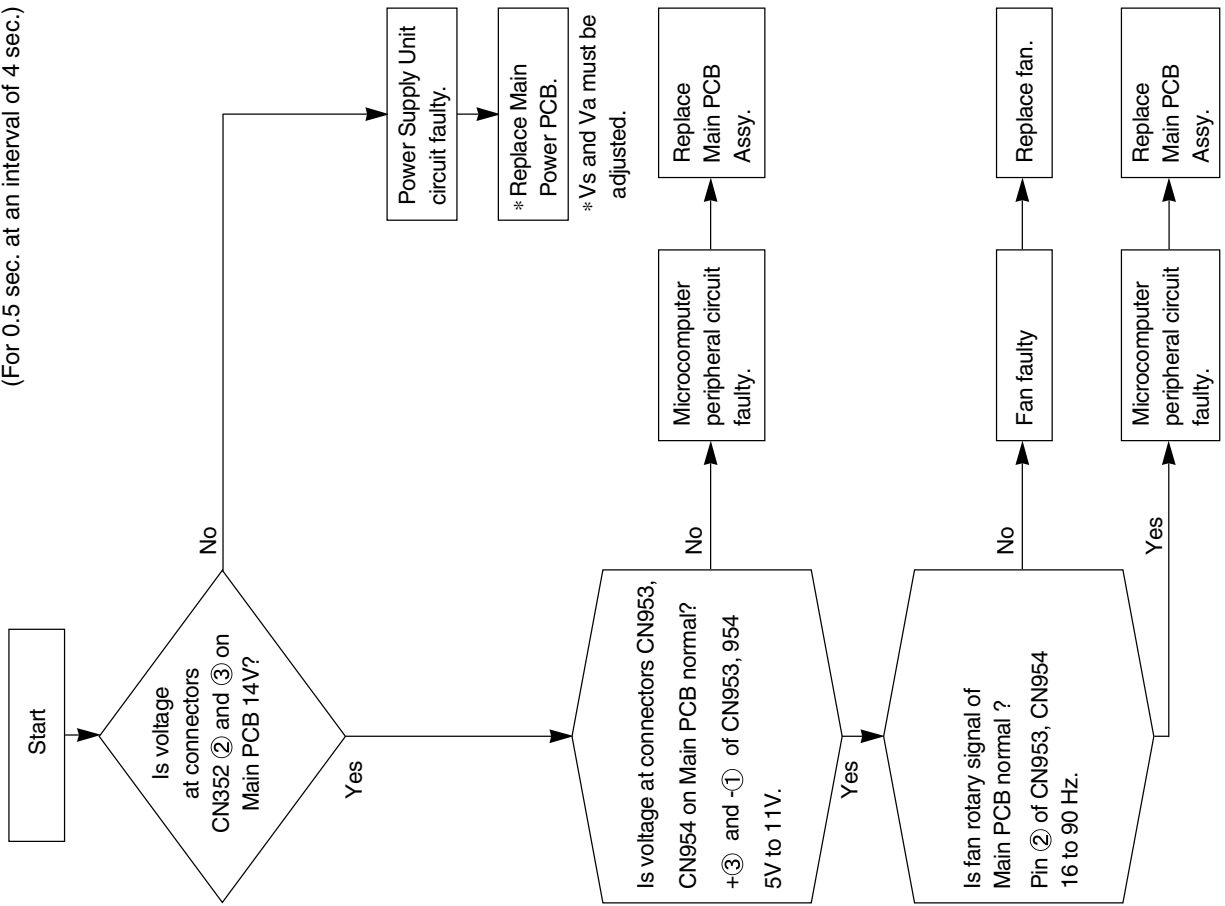
## Check 1



## Check 2

Fan protector operated

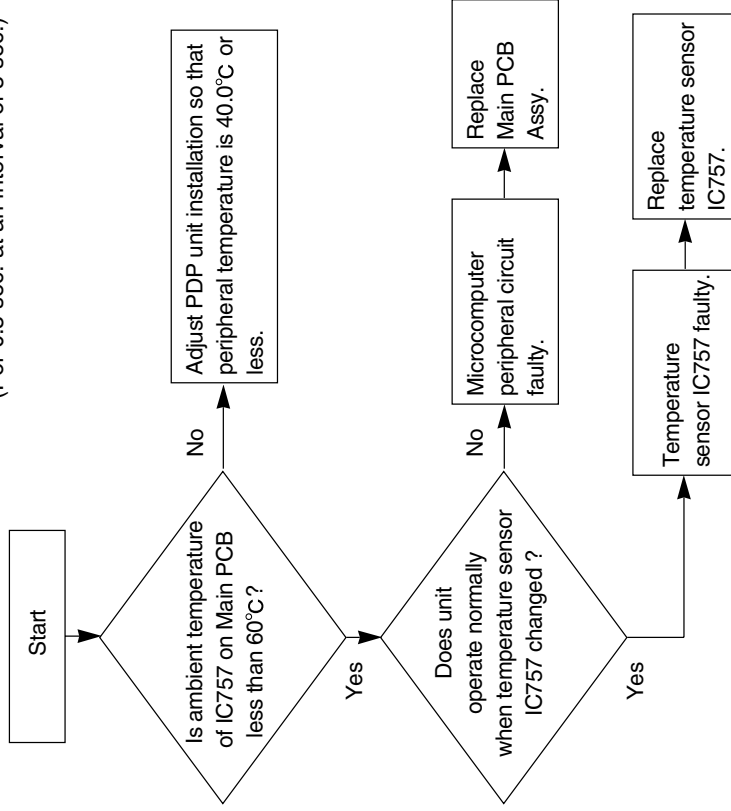
Power lamp: Flashes once intermittently in red.  
(For 0.5 sec. at an interval of 4 sec.)



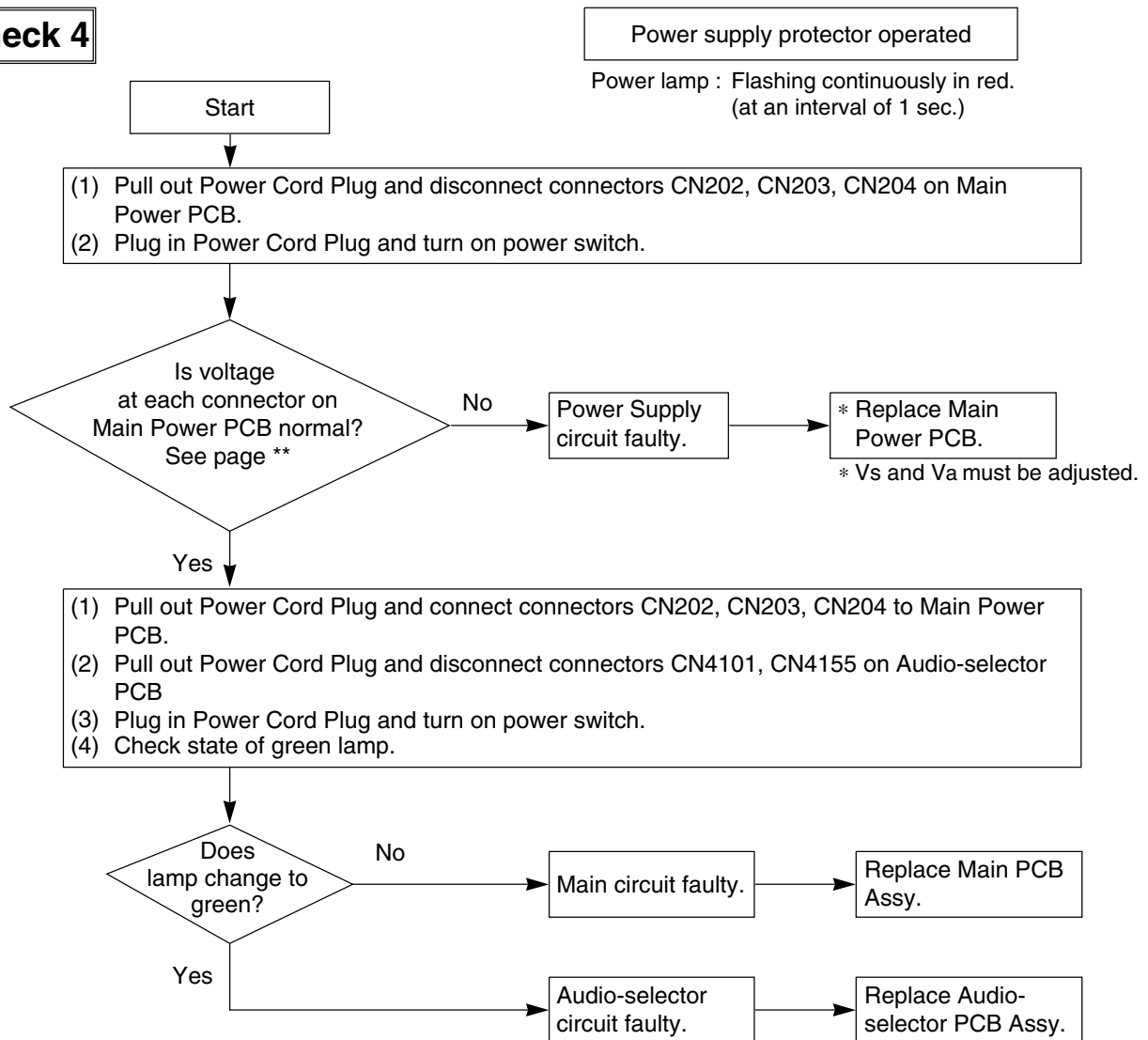
## Check 3

Temperature protector operated

Power lamp : Flashes intermittently twice in red.  
(For 0.5 sec. at an interval of 5 sec.)



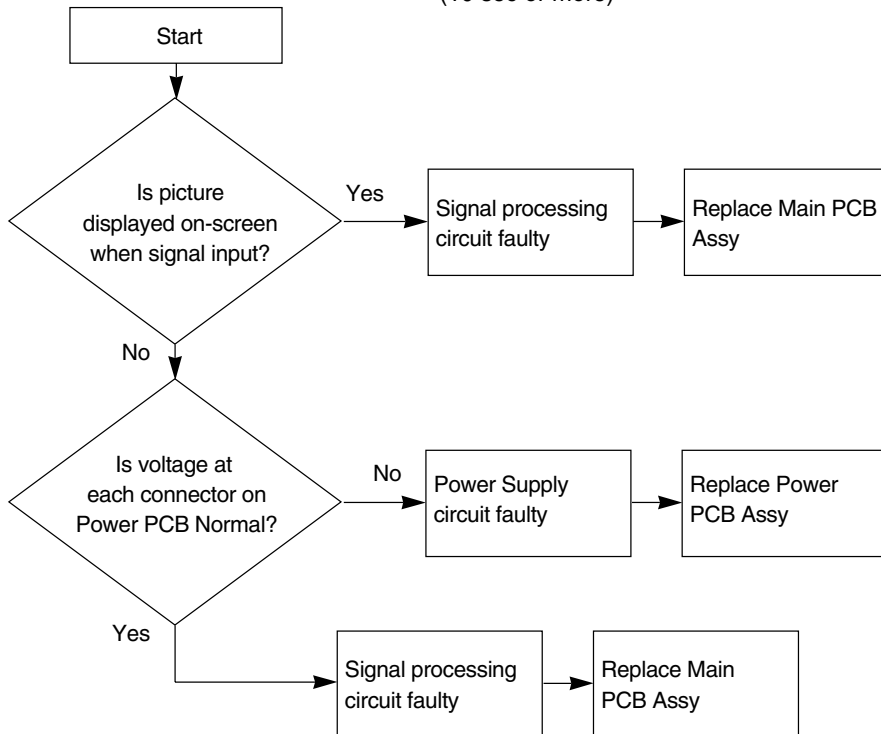
## Check 4



## Check 5

OSD is not displayed

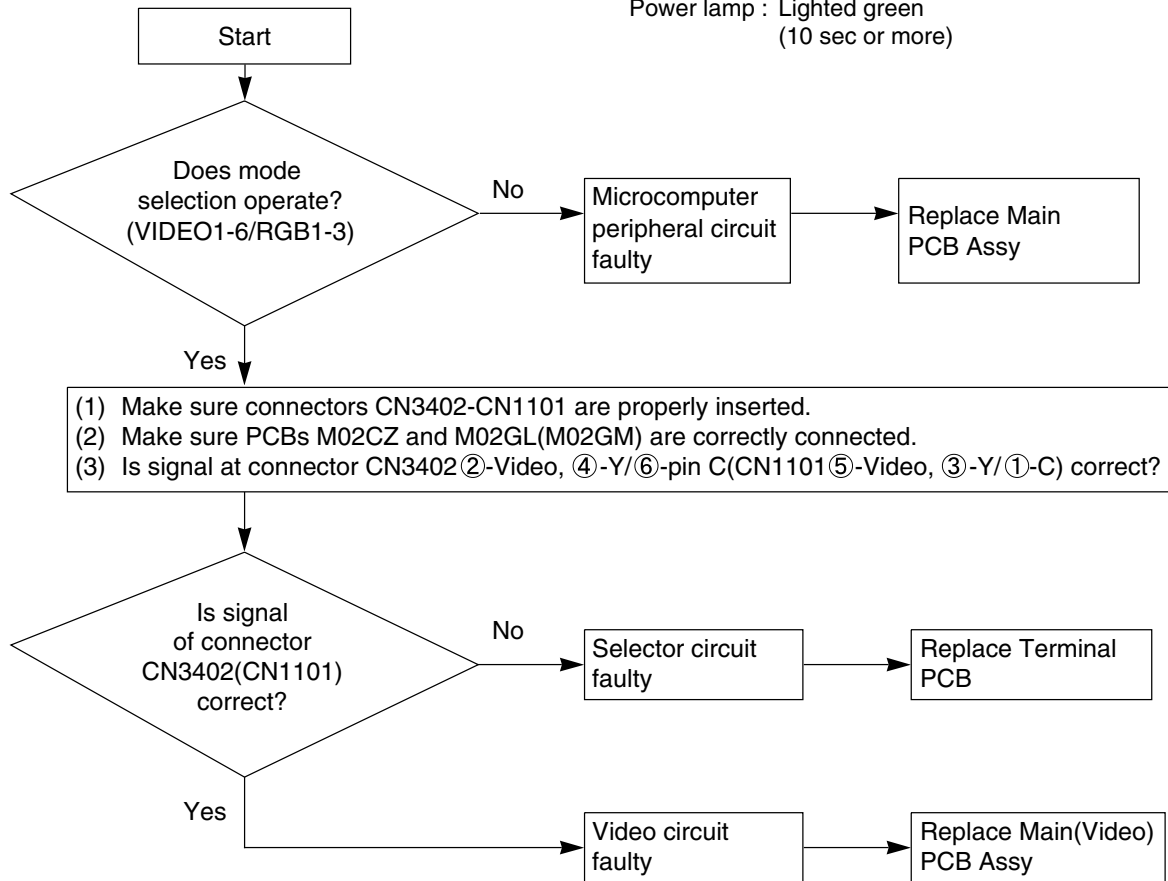
Power lamp : Lighted green.  
(10 sec or more)



## Check 6

Video/S-video input signal are abnormal.

Power lamp : Lighted green  
(10 sec or more)

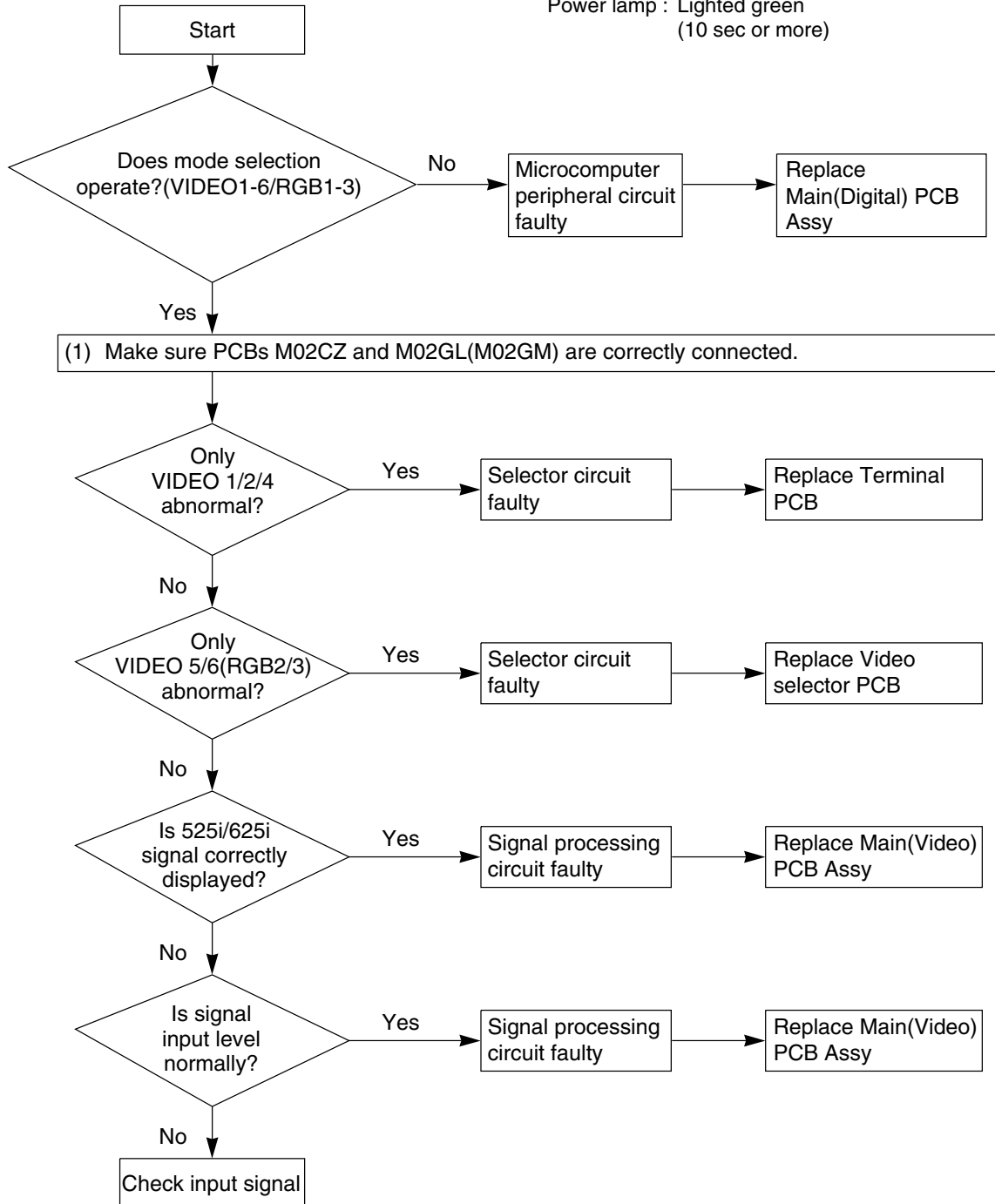




## Check 7

Component input signal are abnormal.

Power lamp : Lighted green  
(10 sec or more)

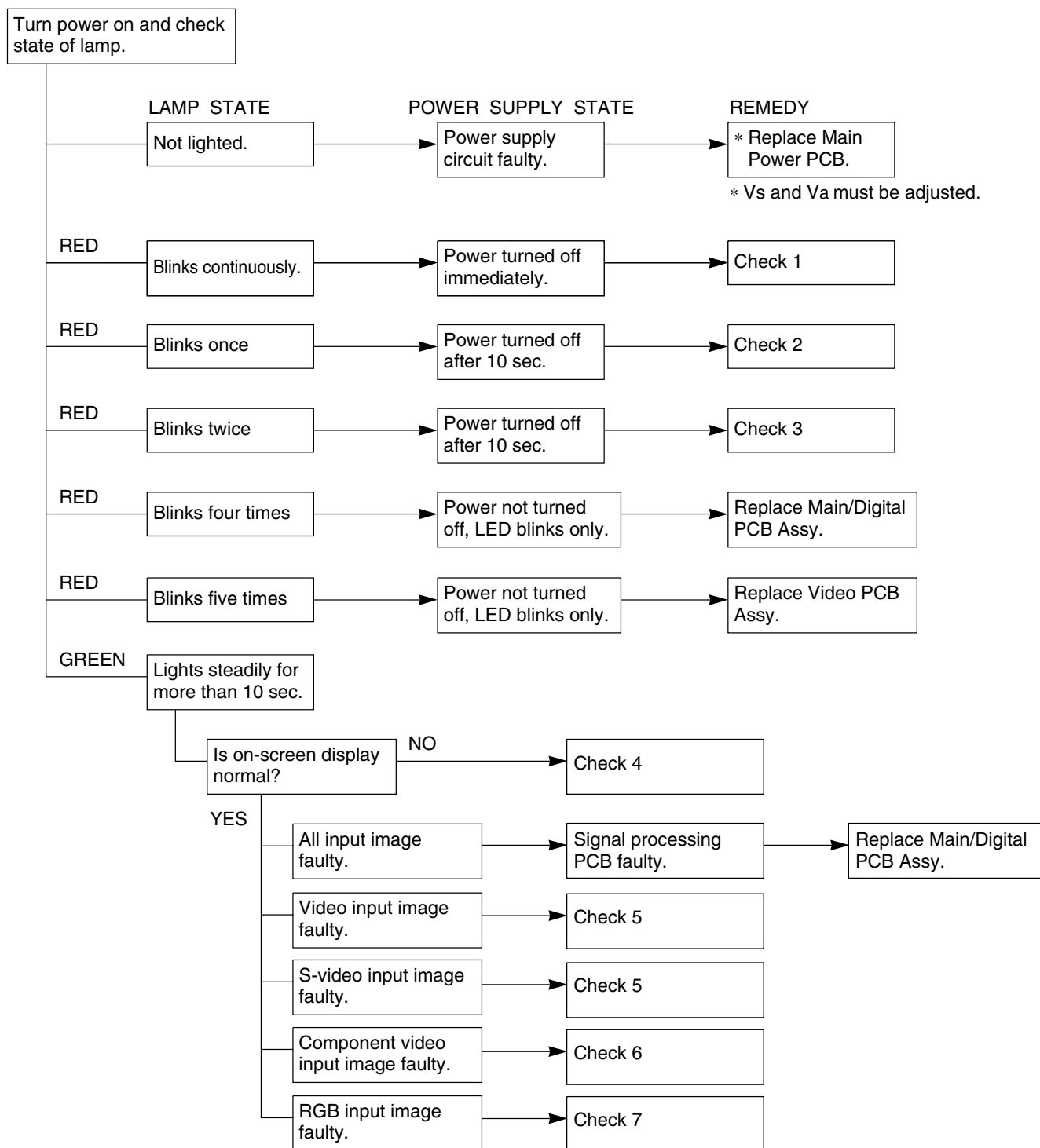


\*SYNC signals are added to the Y signal.

# Model : P42HHA10W/E

## LED lamp blinking

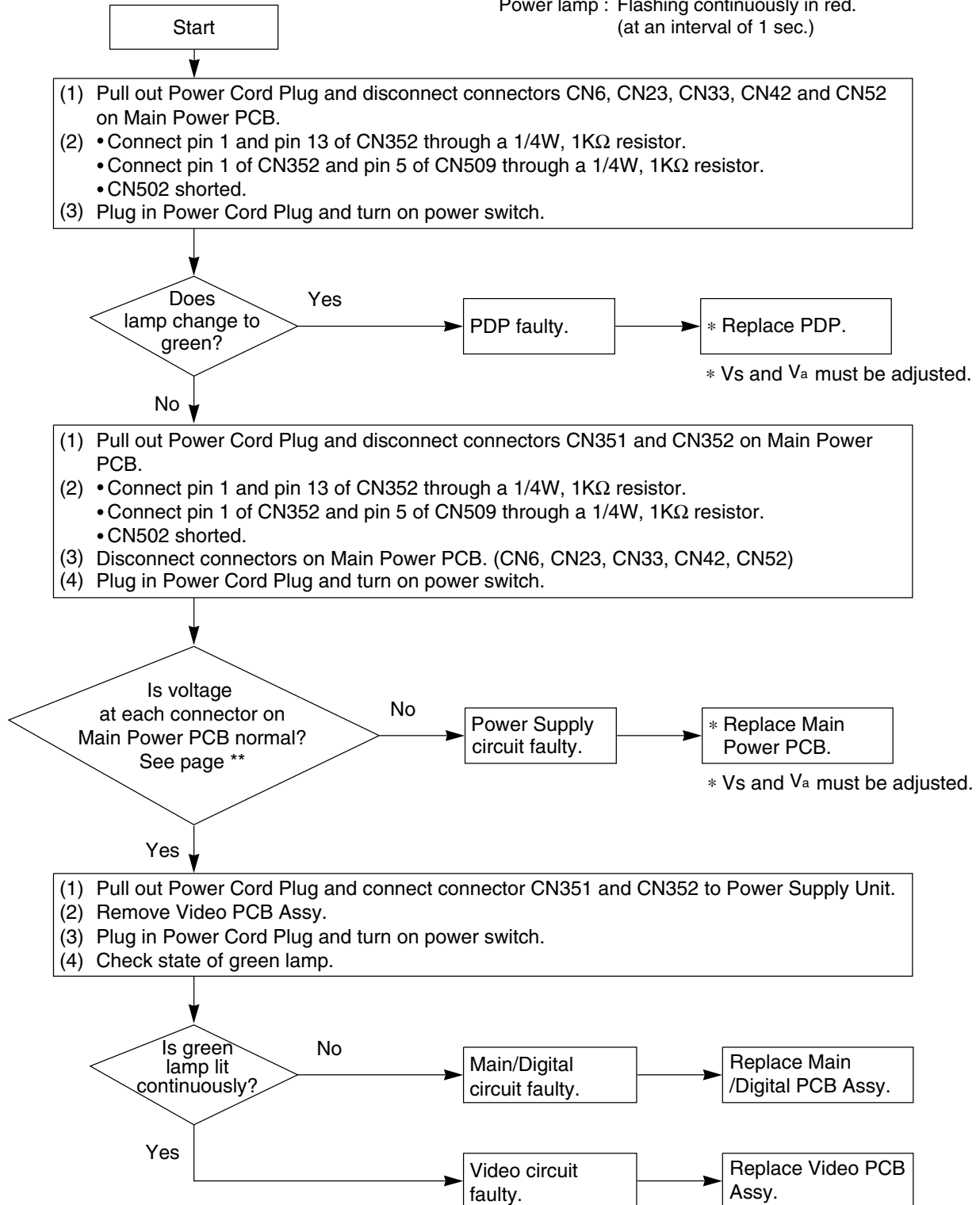
- Note : 1. Since a voltage is applied to the Main Power PCB heat sinks while the set is operating, do not touch the heat sinks.  
2. If the Main Power PCB insulation sheet is not installed when assembling, the Main Power PCB fuse will blow.



## Check 1

Power supply protector operated

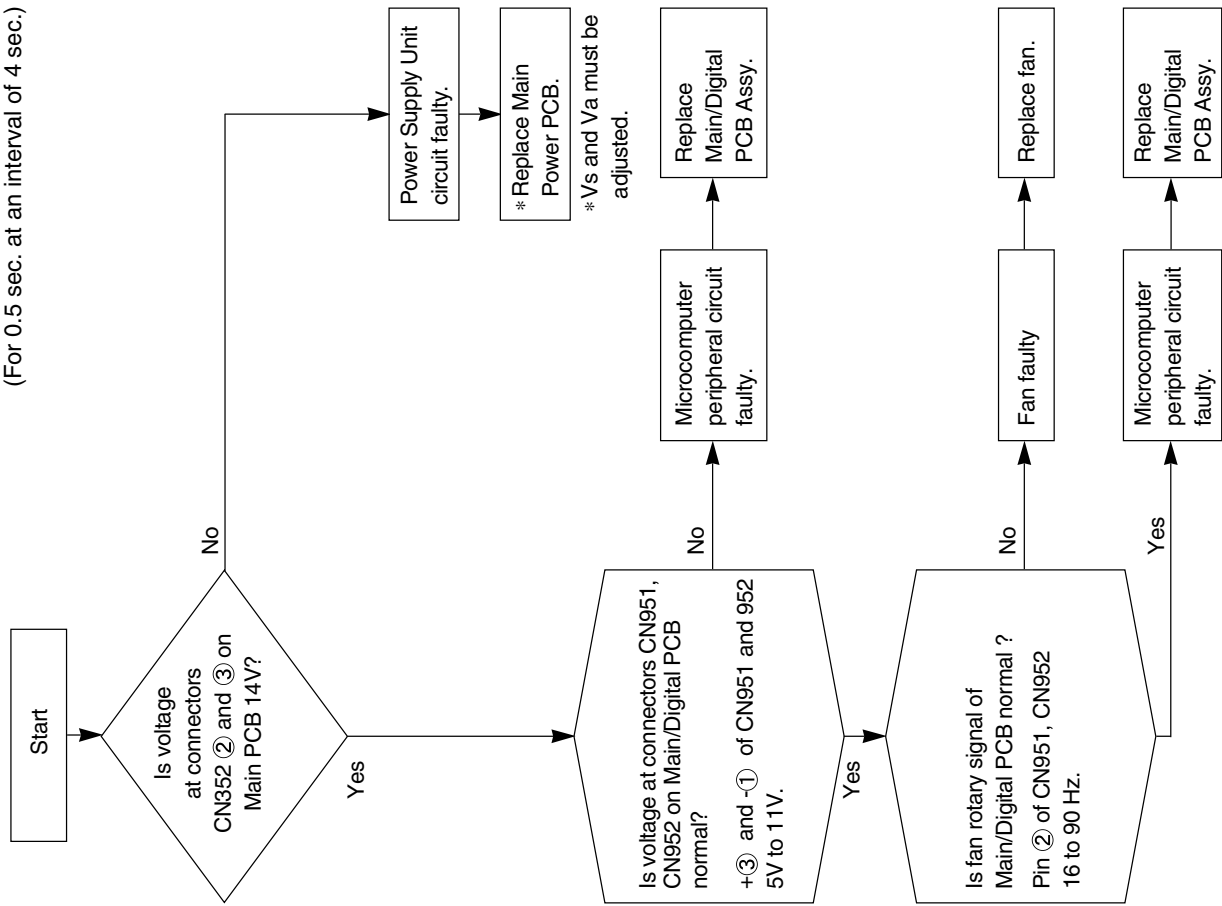
Power lamp : Flashing continuously in red.  
(at an interval of 1 sec.)



## Check 2

Fan protector operated

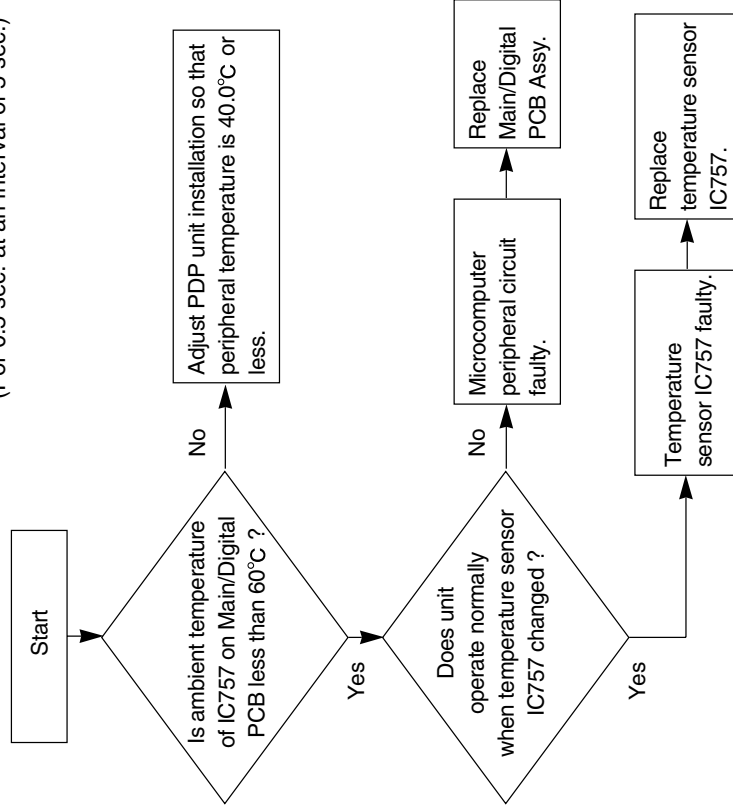
Power lamp: Flashes once intermittently in red.  
(For 0.5 sec. at an interval of 4 sec.)



## Check 3

Temperature protector operated

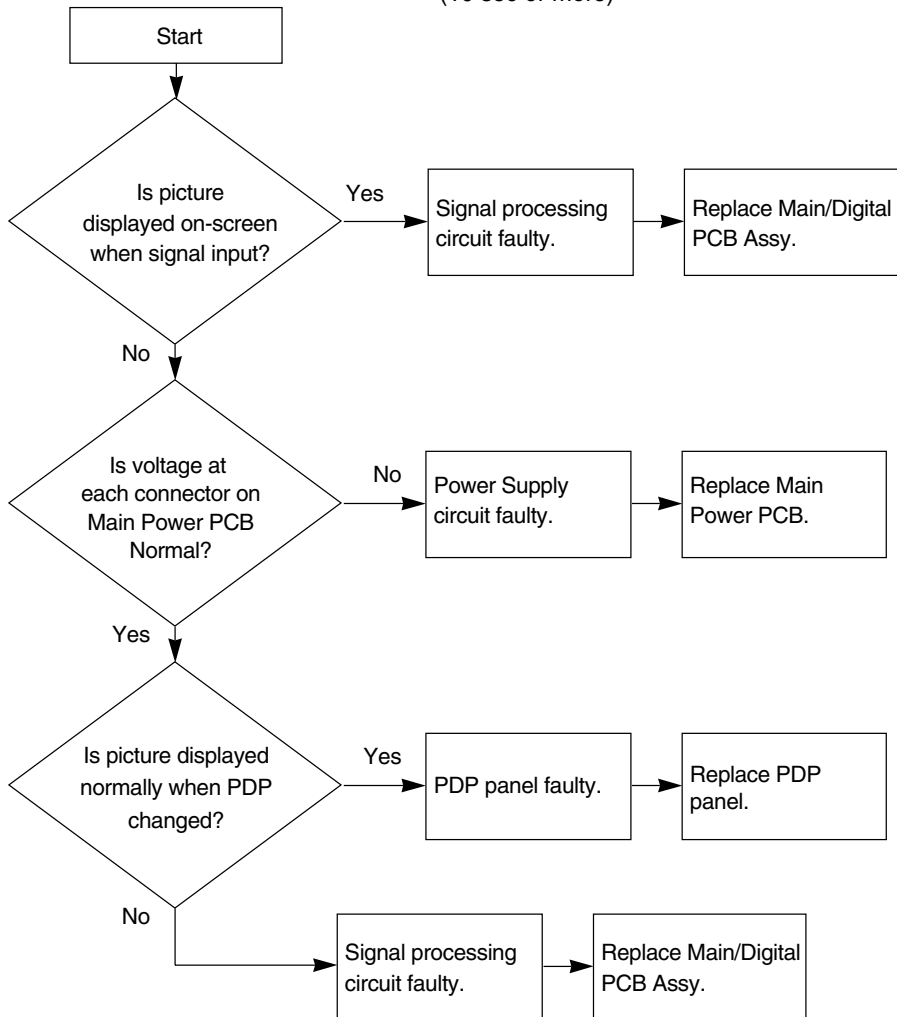
Power lamp : Flashes intermittently twice in red.  
(For 0.5 sec. at an interval of 5 sec.)



## Check 4

OSD is not displayed

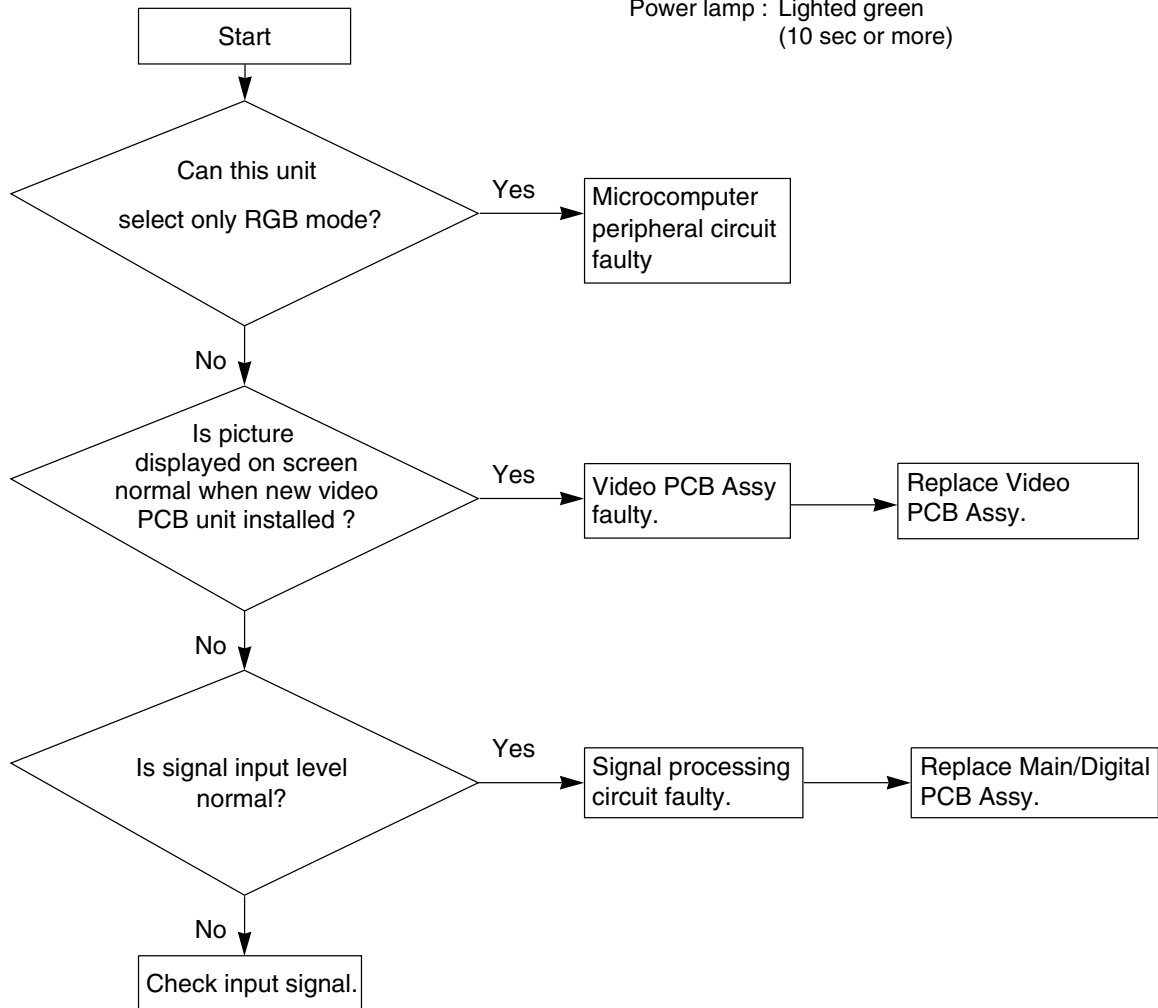
Power lamp : Lighted green.  
(10 sec or more)



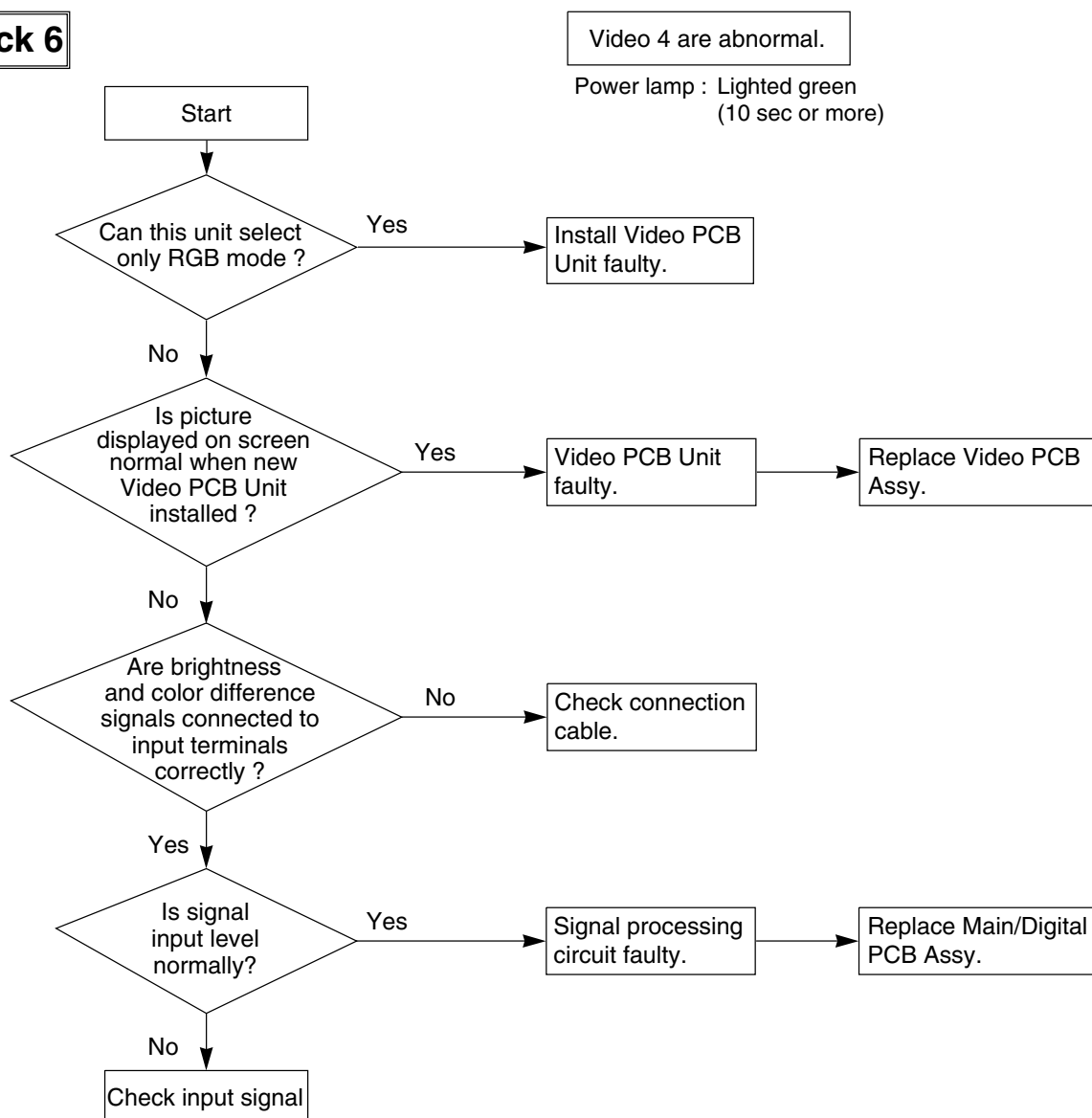
## Check 5

Video 1/ Video 2/ Video 3 input signal are abnormal.

Power lamp : Lighted green  
(10 sec or more)



## Check 6

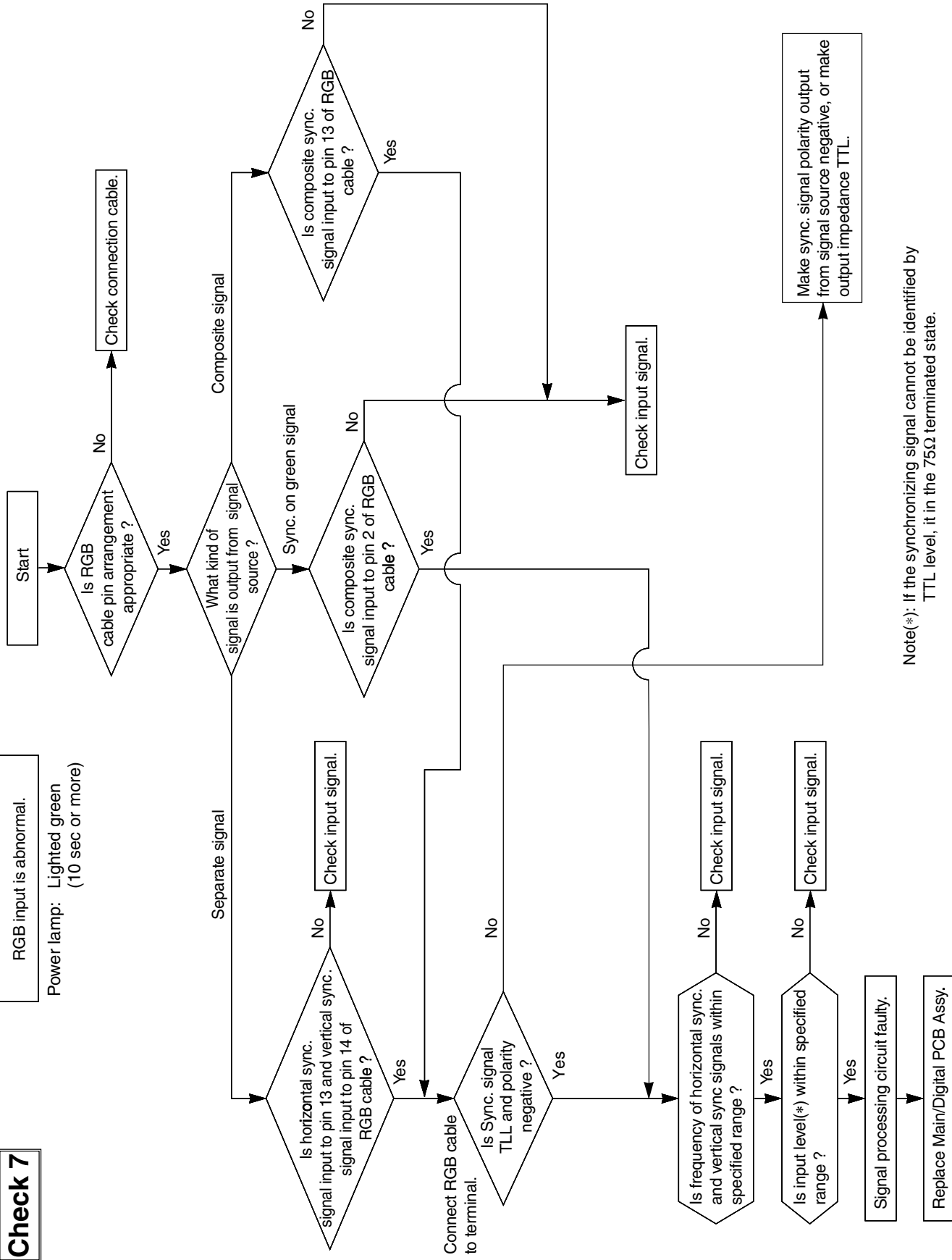


\*SYNC signals are added to the Y signal.

## Check 7

RGB input is abnormal.

Power lamp: Lighted green  
(10 sec or more)



Note(\*): If the synchronizing signal cannot be identified by TTL level, it in the 75Ω terminated state.



# VOLTAGE OF EACH CONNECTOR

## 1. How to measure the voltages on the Main Power Supply PCB in protect mode.

- Since a voltage is applied to the Main Power PCB heat sinks while the set is operating, do not touch the heat sinks.
- After the power cord plug was pulled out, do not pull out the connector on the Main Power PCB until the Green LED (D531: Discharge check LED) turns off.

1) Disconnect CN6, CN23, CN33, CN42 and CN52

- 2) • Connect pin 1 and pin 13 of CN352 through a 1/4W, 1k $\Omega$  resistor.  
 • Connect pin 1 of CN352 and pin 5 of CN509 through a 1/4W, 1k $\Omega$  resistor.  
 • CN502 shorted.

3) Press the power button.

## 2. On the Main Power Supply PCB. (M02FQ)

CN352			
No.	NAME	SPEC.	Ground
1	P5V	5.0V +/- 0.25V	5
3	+14V	14.0V +/- 0.7V	5
6	-8V	-8.0V +/- 0.4V	7

CN351			
No.	NAME	SPEC.	Ground
3	+2.5V	2.5V +/- 0.13V	2
7	+3.3V	3.3V +/- 0.17V	6
12	+6.5V	6.5V +/- 0.33V	11

CN33			
No.	NAME	SPEC.	Ground
1	Vcc 1	5.1V +/- 0.25V	2
9	Vs	82.5V +/- 1.5V	5

CN23			
No.	NAME	SPEC.	Ground
1	Va	60.0V +/- 1.3V	4

CN6			
No.	NAME	SPEC.	Ground
1	Vpri2	3.3V +/- 0.15V	3

# V<sub>S</sub> AND V<sub>A</sub> ADJUSTMENT

**When the Main Power Supply PCB and PDP panel are replaced, V<sub>S</sub> and V<sub>A</sub> must be adjusted.**

Preparation : Heat-run for 5 minutes with a white pattern in the wide mode.

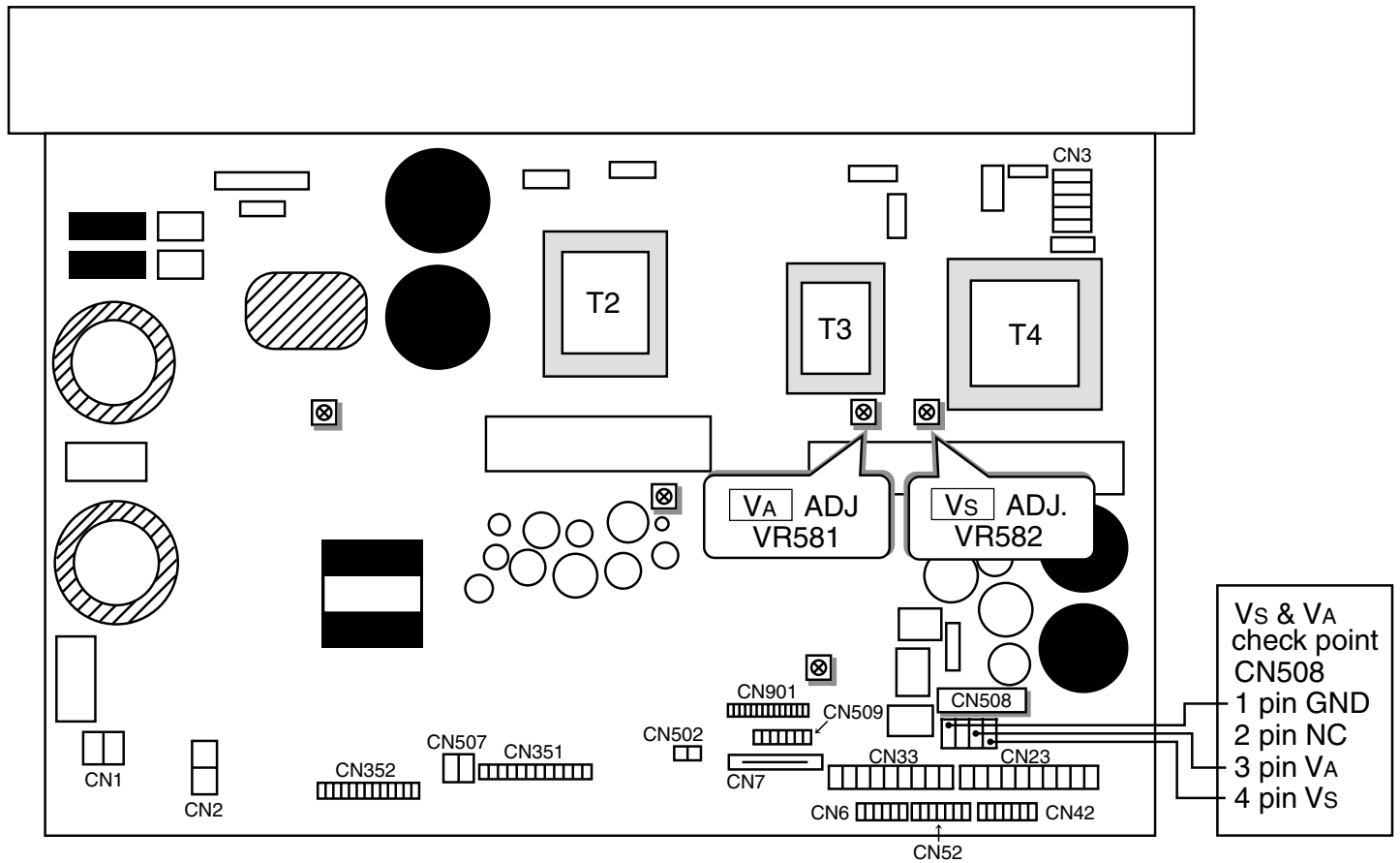
Adjustment : Adjust the V<sub>S</sub> and V<sub>A</sub> in the no-signal state.

Check points : Refer to the drawing shown below.

Adjustment points : Refer to the drawing shown below.

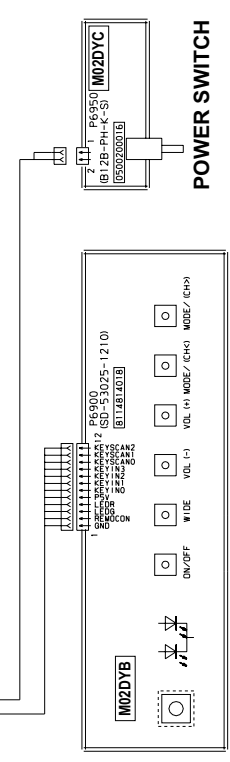
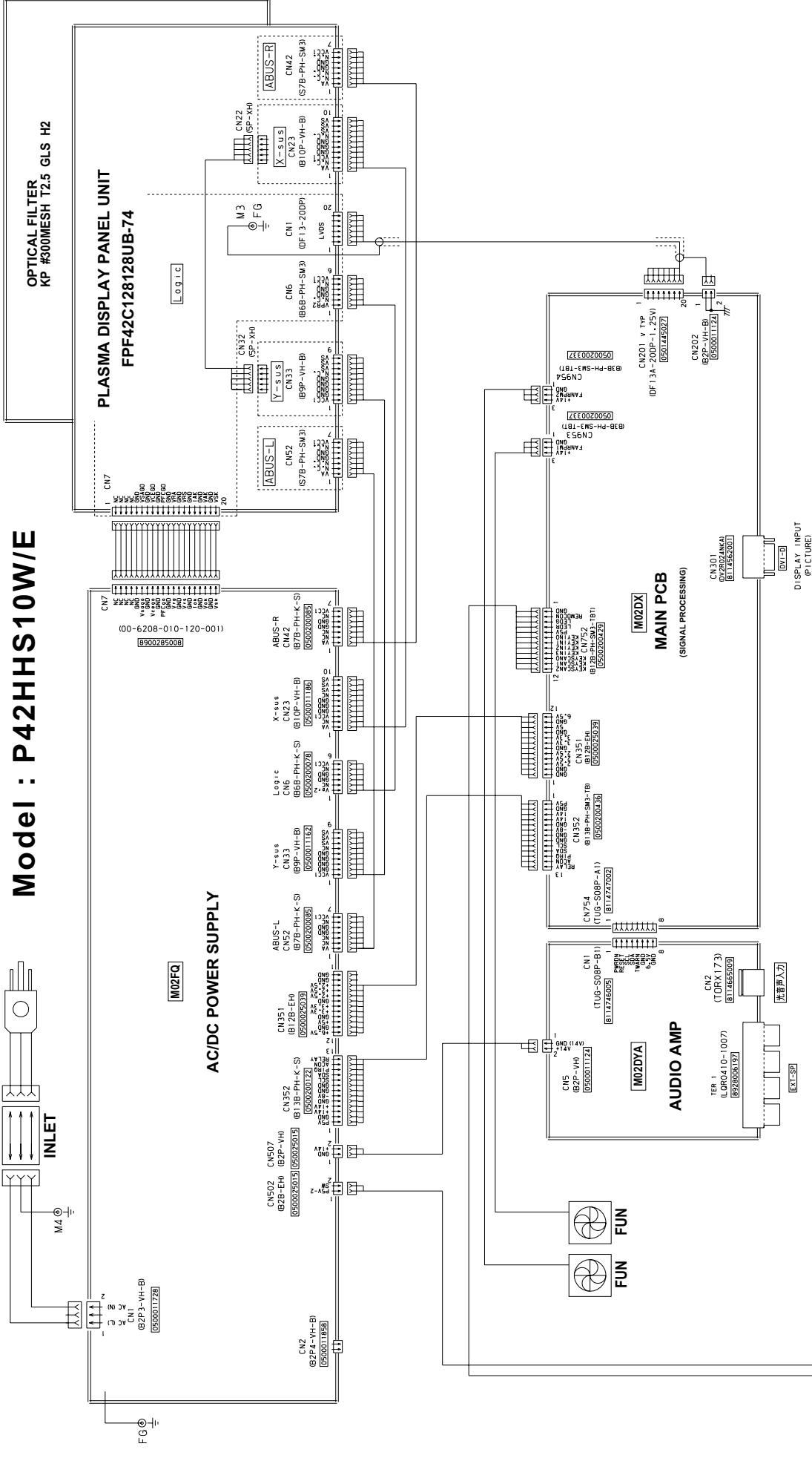
Adjustment value : Within +/- 0.1V of voltage indicated on the label of the PDP panel.

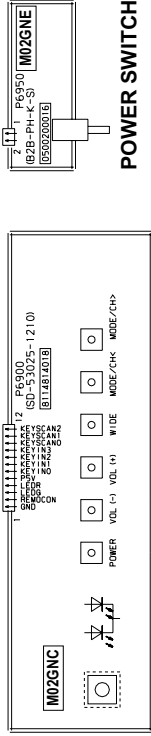
## - MAIN POWER SUPPLY PCB (M02FQ-PCB) -

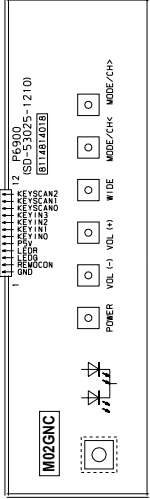


# GENERAL CONNECTION DIAGRAM

Model : P42HHS10W/E

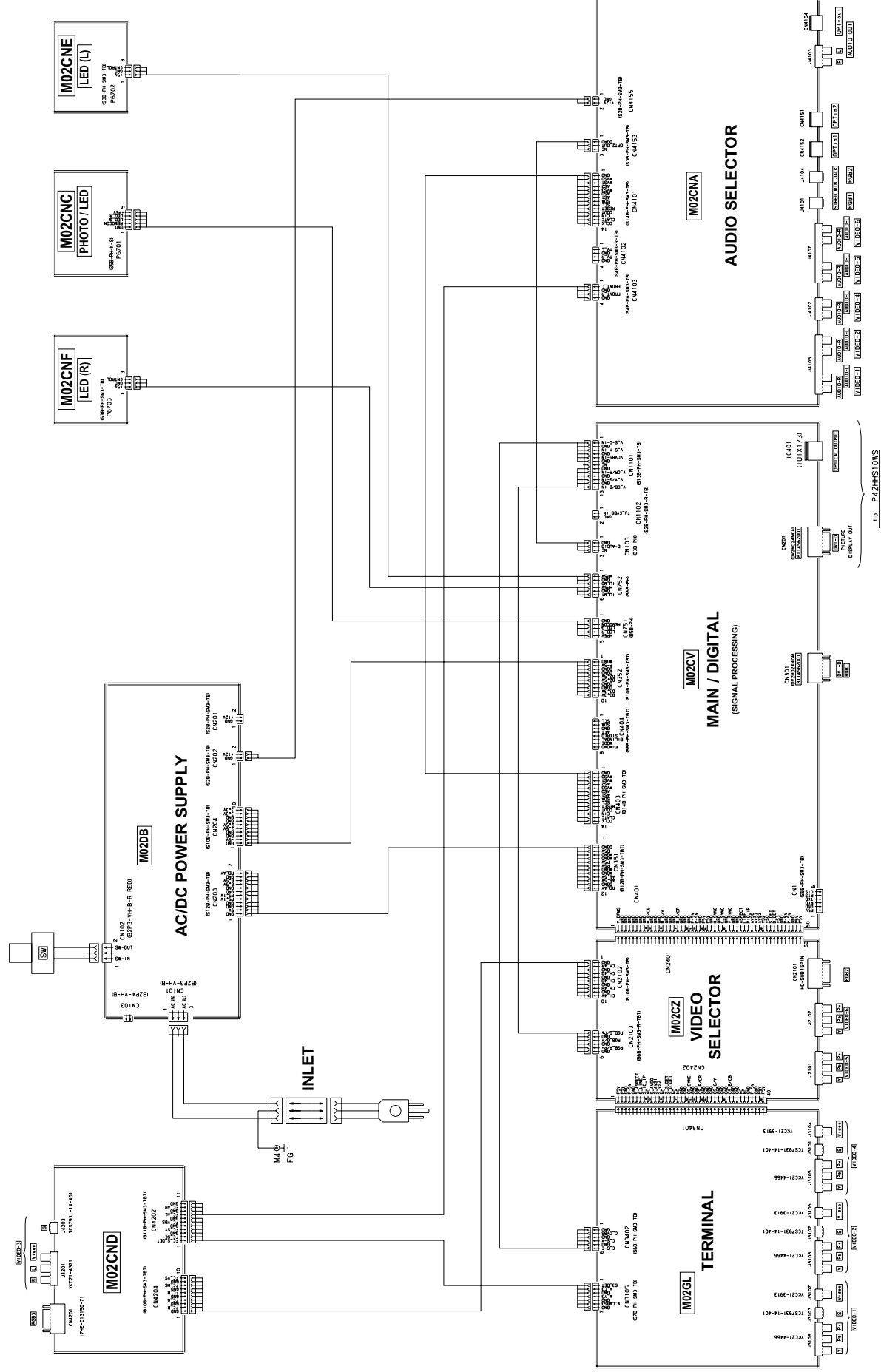






## POWER SWITCH

# Model : P-SU4H10W





# DISASSEMBLY

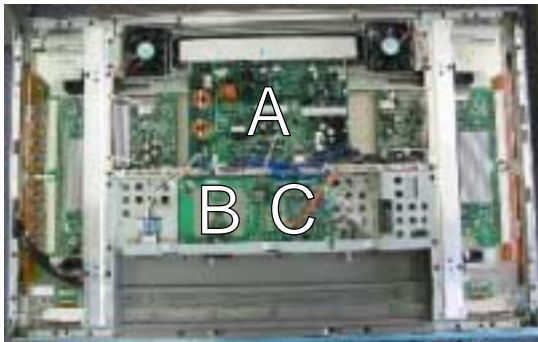
## Model : P42HHS10W/E

### 1. Removing the Rear Case and layout of Main PCB

---



1. Remove the 19 screws and Rear Case.



\* Layout of Main PCB.



A: Main Power PCB



B: Audio PCB



C: Main PCB



## 2. Removing the Main Power PCB

---



1. Remove the Rear Case.
2. Take away the insulator.



3. Disconnect the 11 circled connector.



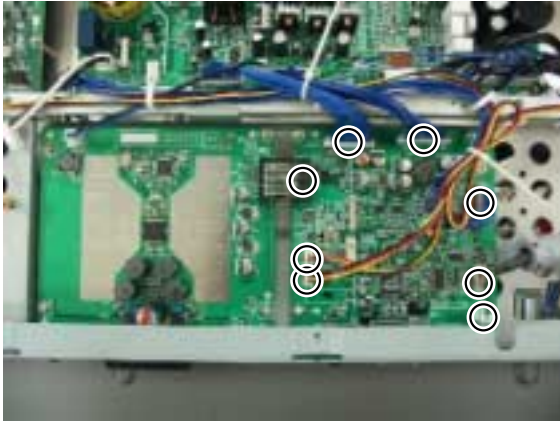
4. Remove the 2 screws and Main Power PCB.



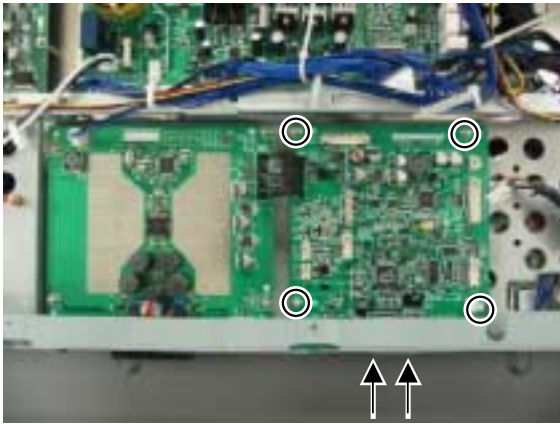
\* View after Main Power PCB removed.

### 3. Removing the Main PCB

---



1. Remove the Rear Case and disconnect the 8 circled connectors.



2. Remove the 6 screws and Main PCB.



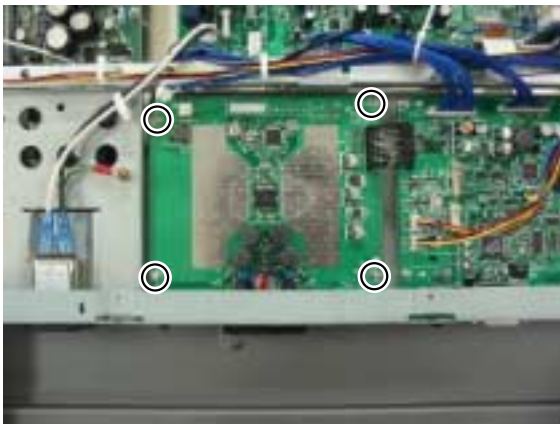
\* View after Main PCB was removed.

#### 4. Removing the Audio PCB

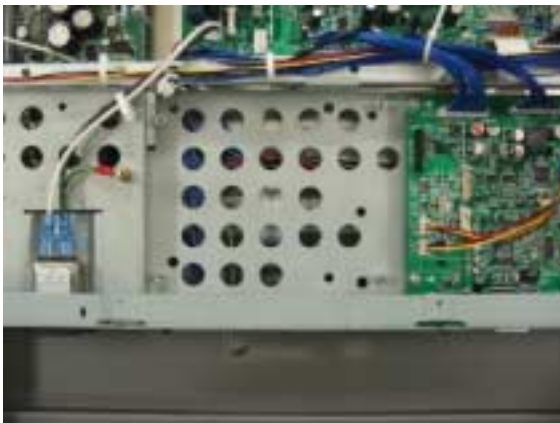
---



1. Remove the Rear Case and disconnect the 2 circled connectors.



2. Remove the circled 4 screws.



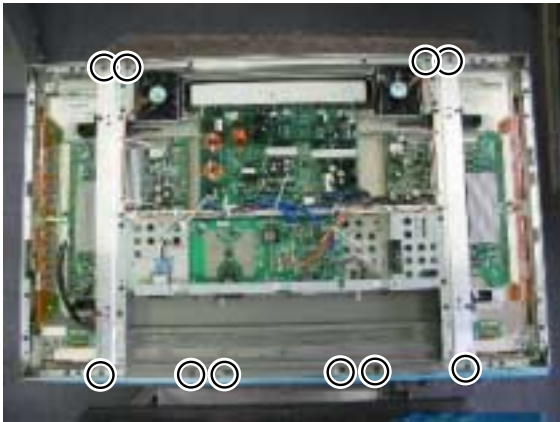
\* View after Audio PCB was removed.

## 5. Removing the PDP Unit (1 of 3)

---



1. Remove the Rear Case and disconnect the 2 circled connectors.



2. Remove the 10 circled screws.



3. Remove the Base Frame from the Front Case together with the panel and PCBs.



\* View after removal of the Base Frame from the Front Case.



## 5. Removing the PDP Unit (2 of 3)

---

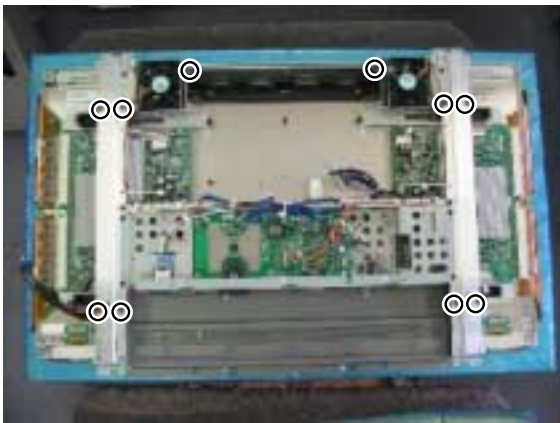


\* View after the Front Case Panel Unit and PCBs were removed.

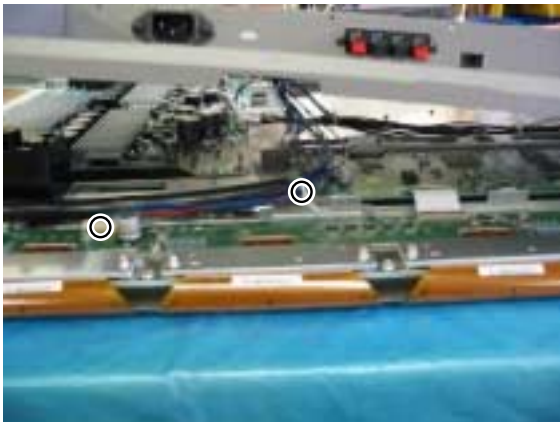
4. Remove the Main Power PCB.  
(To remove the Main Power PCB, refer to the Page 72)



5. Disconnect the 2 circled connectors.



6. Remove the 10 circled screws and lift up the Base Frame.



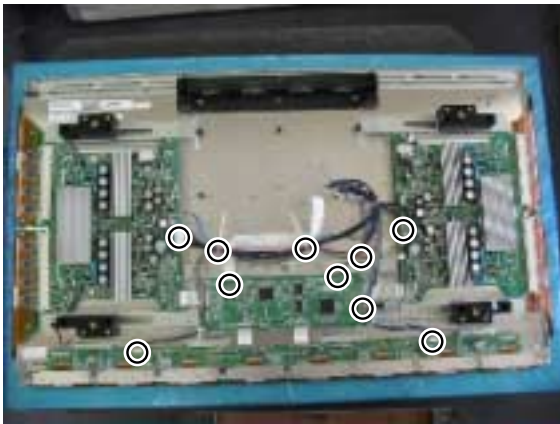
7. Disconnect the 1 circled connector and the 1 wire clamped.

## 5. Removing the PDP Unit (3 of 3)

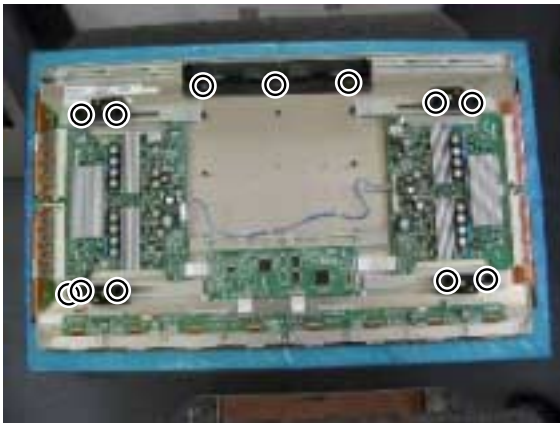
---



8. Remove the Base Frame together with wires and other parts.



9. Disconnect the 7 circled connectors  
1 screw and 2 wire clampers.



10. Remove the 12 circled screws.



\* View after only the PDP Unit was removed.

\* Replace the removed parts back in the correct places when the PDP Unit is replaced.

## 6. Removing the Bezel Front and Optical Filter (1 of 2)

---



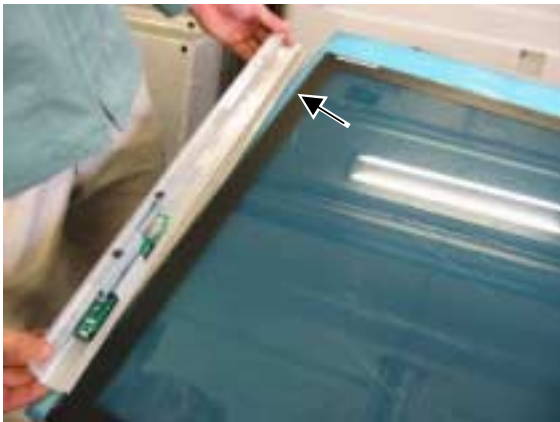
1. Remove the PDP Unit and 8 circled screws.  
(To remove the PDP Unit, refer to Page 75)



2. Pull the Bezel Front in the direction of arrow.  
(Repeat the same procedure on the other 3 locations.)



- \* View after the both top and bottom Bezel Front removed.



3. Pull toward the direction of arrow.  
(Remove the other side in a same manner)

## 6. Removing the Bezel Front and Optical Filter (2 of 2)

---



\* View after Bezel Front was removed.



## 7. Removing the Key Switch PCB

---



1. Remove the PDP Unit, 1 circled screw and Key Switch Unit.  
(To remove the PDP Unit, refer to Page 75)



2. Remove the 2 circled screws.

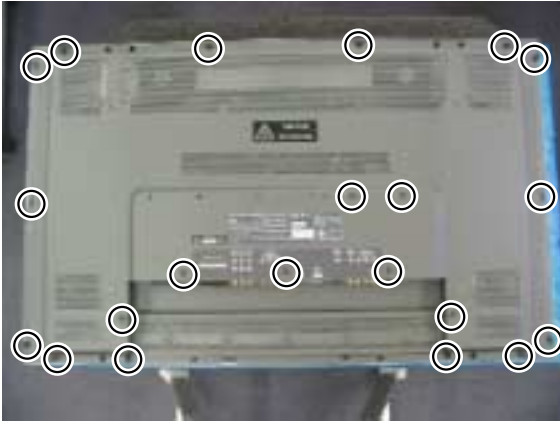


3. Remove the Key Switch PCB.

## Model : P42HHA10W/E

### 1. Removing the Rear Case (1 of 2)

---



1. Remove the 21 circled screws and remove the Rear Case.



\* Layout of Main PCB.



A: Main Power PCB



B: Audio PCB



C: Component PCB



D: Video PCB



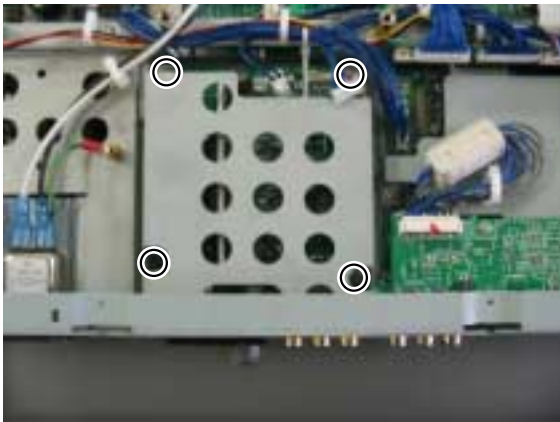
E: Main/ Digital PCB

## 2. Removing the Audio PCB

---



1. Remove the Rear Case and disconnect the 2 circled connectors.



2. Remove the circled 4 screws and the shield bracket.



3. Remove the circled 4 screws and Audio PCB.



\* View after Audio PCB was removed.

### 3. Removing the Component PCB

---



1. Remove the Rear Case and disconnect the 1 circled connector.



2. Remove the 2 screws and Component PCB.



\* View after Component PCB was removed.

#### 4. Removing the Video PCB

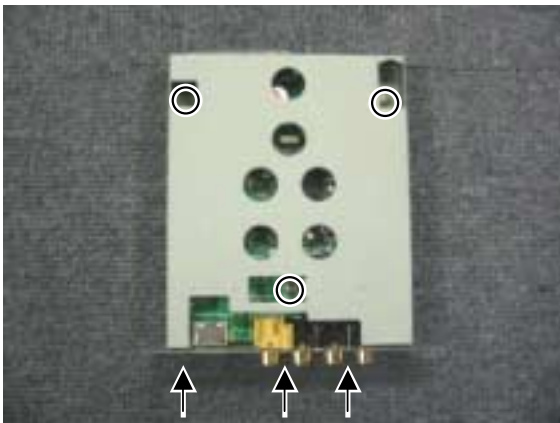
---



1. Remove the 3 circled screws.



2. Remove the Video PCB Unit.



3. Remove the 6 screws and Video PCB.

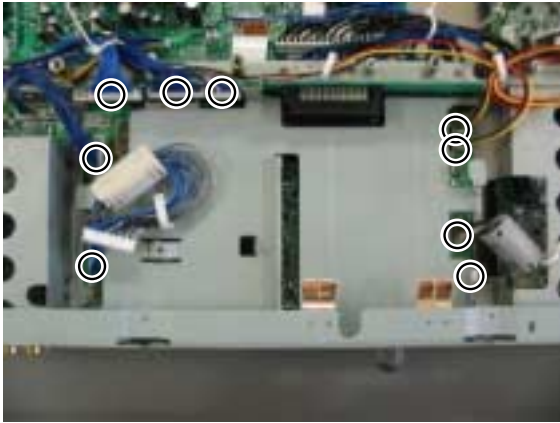


\* View after Video PCB was removed.

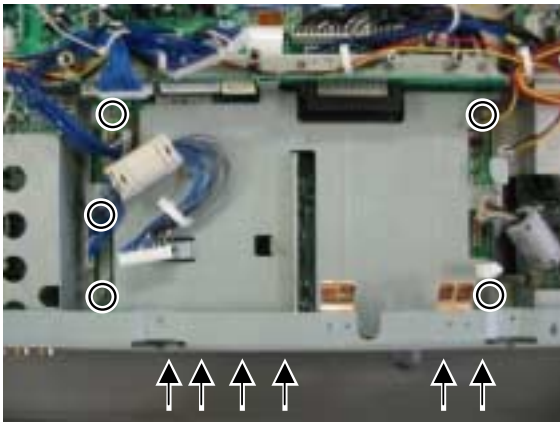


## 5. Removing the Main Digital PCB (1 of 2)

---



1. Remove the Rear Case, Component PCB and Video Unit.  
(Refer to Page 84, 85)
2. Disconnect the 9 circled connectors.



3. Remove the 11 circled screws and Main Digital Unit.



4. Remove the shield bracket.



5. Disconnect the connection PCB.

## 5. Removing the Main Digital PCB (2 of 2)

---



\* View after Main Digital PCB was removed.



## Model : P-SU4H10W/E

### 1. Removing the Tope Cover (1 of 2)

---



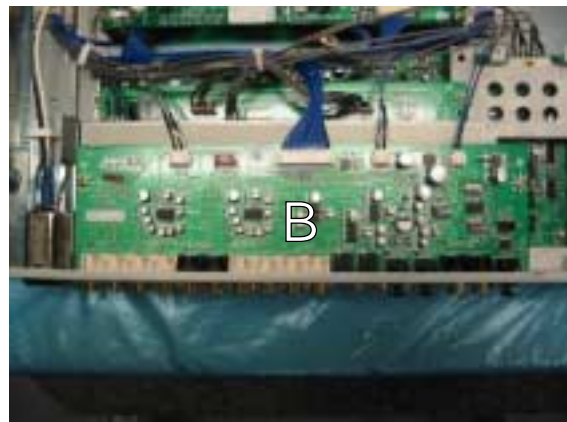
1. Remove the 2 circled screws.



2. Remove the 2 circled screws on the other side.

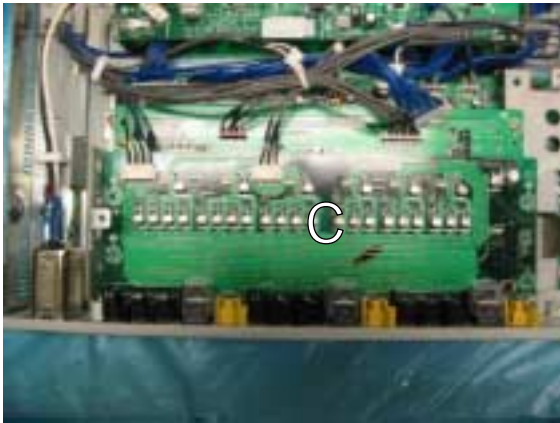


3. Remove the 4 circled screws and Top Cover.



1. Removing the Top Cover (2 of 2)

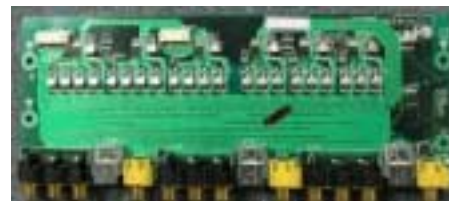
---



A: Main Power PCB



B: Audio Selector PCB



C: Terminal PCB



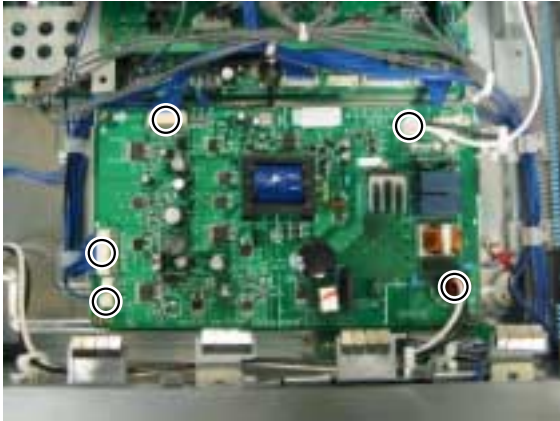
D: Video Selector PCB



E: Main Digital PCB

## 2. Removing the Main Power PCB

---



1. Remove the Top Cover.
2. Disconnect the 5 circled connectors.



3. Remove the 4 circled screws and Main Power PCB.

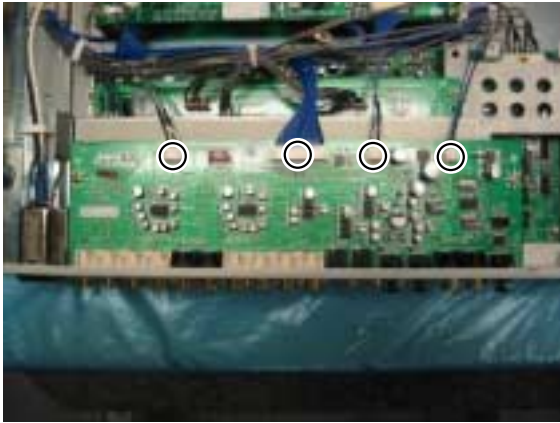


\* View after Main Power PCB was removed.



### 3. Removing the Audio Selector PCB

---



1. Remove the Top Cover and diconnect the 4 circled connectors.



2. Remove the circled 2 screws.



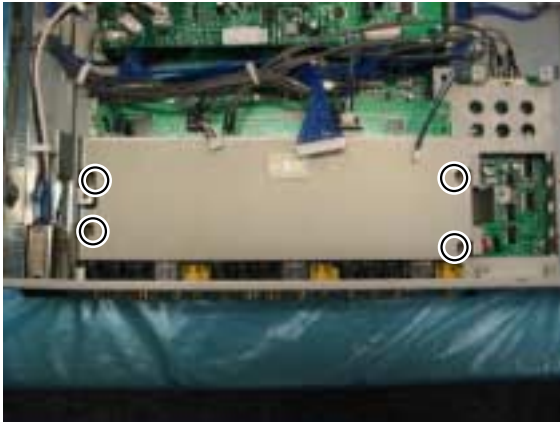
3. Remove the circled 7 screws and Audio Selector PCB.



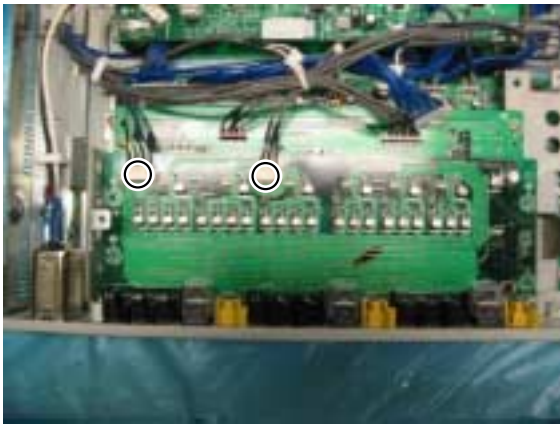
\* View after Audio Selector PCB was removed.

#### 4. Removing the Terminal PCB

---



1. Remove the Top Cover and Audio Selector PCB.  
(To remove the Audio Selector PCB, refer to the Page 91)
2. Remove the 4 circled screws and the shield bracket.



3. Disconnect the 2 circled connectors.



4. Remove the 6 circled screws and Terminal PCB.



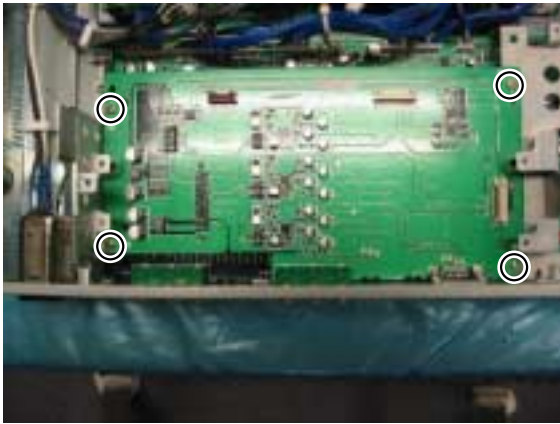
\* View after Terminal PCB was removed.

## 5. Removing the Video Selector PCB

---



1. Remove the Top Cover and Audio Selector PCB.
2. Remove the Terminal PCB and disconnect the 2 circled connectors.  
(Refer to Page 91, 92)



3. Remove the 4 circled screws.



4. Remove the 10 circled screws and Video Selector PCB.



\* View after Video Selector PCB was removed.

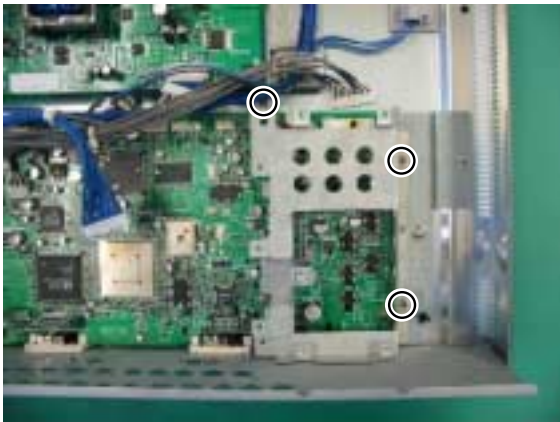


## 6. Removing the Main Digital PCB (1 of 2)

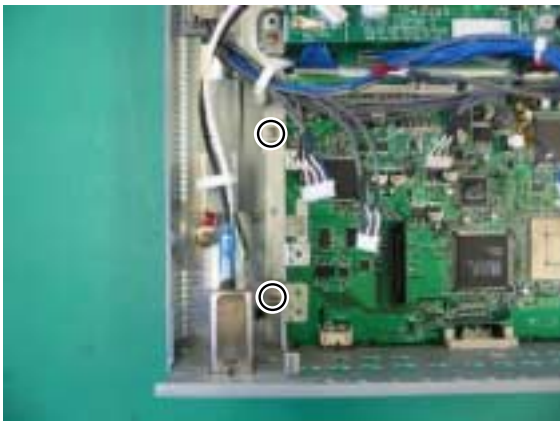
---



1. Remove the Top Cover and Audio Selector PCB.
2. Remove the Terminal PCB and Video Selector PCB.  
(Refer to Page 91, 92, 93)
3. Disconnect the 7 circled connectors.



4. Remove the 3 screws and the shield bracket.



5. Remove the 2 screws and the shield bracket.



6. Remove the 6 circled screws and Main Digital PCB.

## 6. Removing the Main Digital PCB (2 of 2)

---



\* View after Main Digital PCB was removed.

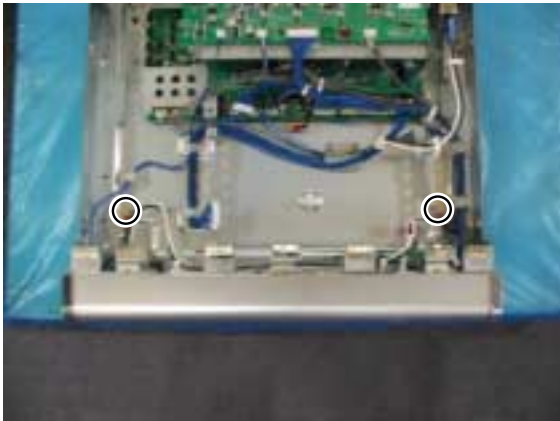


## 7. Removing the LED PCB (1 of 3)

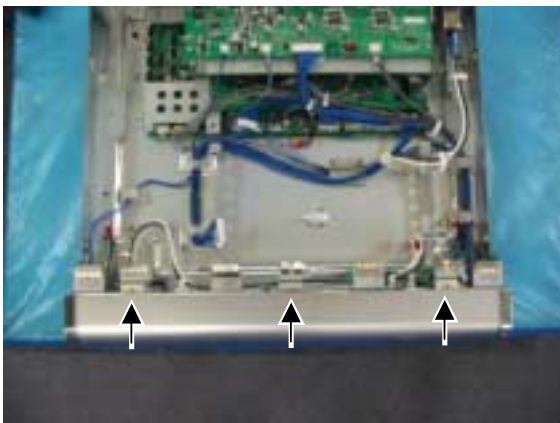
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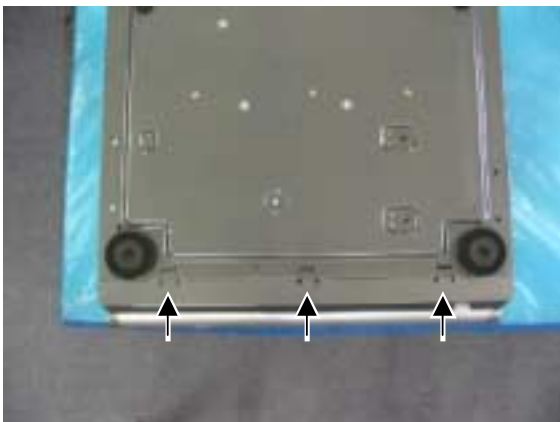
1. Remove the 1 circled screw.



2. Remove the 2 circled screws.



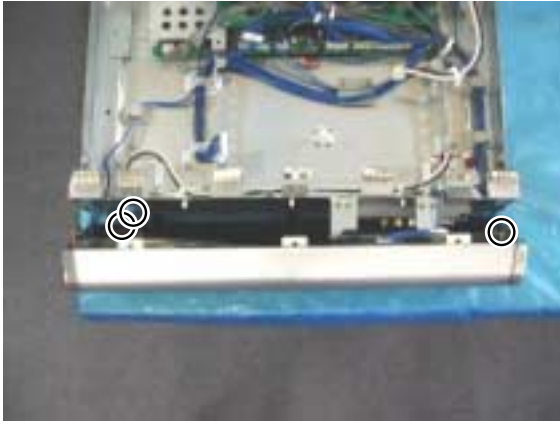
3. Unhook the 3 locations in arrow.



4. Unhook the 3 locations in arrow.

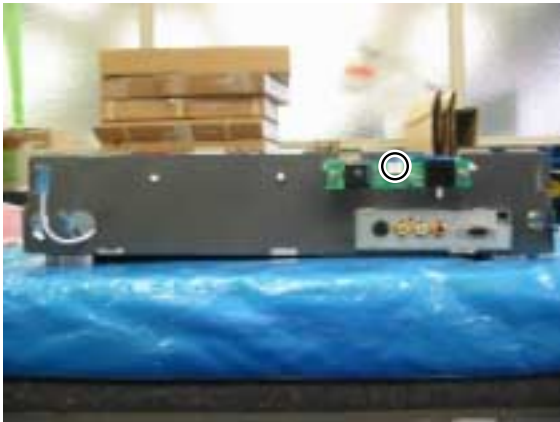
## 7. Removing the LED PCB (2 of 3)

---



5. Disconnect the 3 circled connectors.

6. Remove the Front Cover.



7. Disconnect the 1 circled connector.



8. Remove the 2 circled screws and LED Unit.



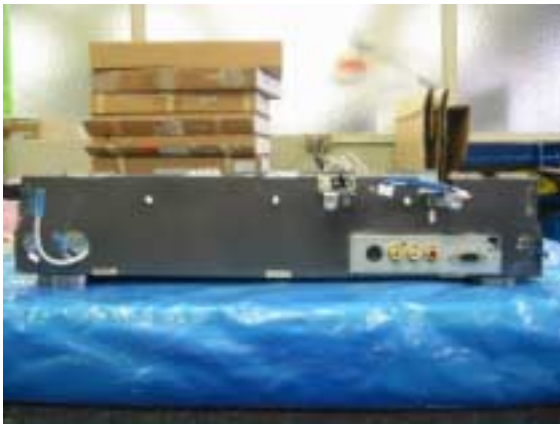
9. Remove the 2 LED Covers.

## 7. Removing the LED PCB (3 of 3)

---



10. Remove the LED PCB.



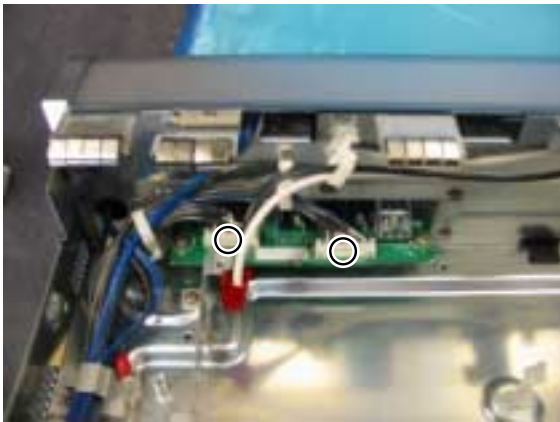
\* View after LED PCB was removed.

## 8. Removing the Interface PCB

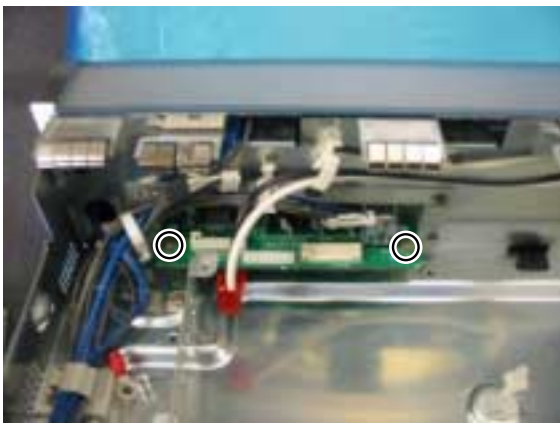
---



1. Remove the Top Cover and Main Power PCB.  
(To remove the Main Power PCB, refer to the Page 90)
2. Remove the 3 circled screws.



3. Disconnect the 2 circled connectors.



4. Remove the 2 circled screws and Interface PCB.



\* View after Interface PCB was removed.

# PARTS LIST

Ref.no.	Description	P42HHS10WS	P42HHS10ES
Cabinet	Bezel Front Top	8114509006	←
	Bezel Front Btm	8114510002	←
	Bezel Front L	8114511009	←
	Bezel Front R	8114512006	←
	Panel Rear	8114554006	←
Electric	Fan Motor	8900295007	←
	Optical Filter	8114890005	←
	Audio PCB	8115077009	←
	Main PCB	8115818008	←
	Main Power PCB	8115830000	←
	Key Photo PCB	8115079003	←
	Power Switch PCB	8115081006	←
	PDP Unit	S141011609	←
	Button Key Switch	8114519005	←
	Button Main Switch	8114518008	←
	Power Cord UL/CSA VDE	8111725003 -----	----- 8111726000
Packing	Audio Cable	8115072004	←
	DVI Cable	8115073001	←
	Carton Top	8114549002	←
	Carton Bottom	8114547008	←
	Packing Joint-D	8108655009	←
	Packing Pad-Top	8114551005	←
	Packing Pad-Bottom	8114550008	←
	Carton Accessory	8111799004	←

← : Same as left

Ref.no.	Description	P42HHA10WS	P42HHA10ES
Cabinet	Bezel Front Top	8114509006	←
	Bezel Front Btm	8114510002	←
	Bezel Front L	8114511009	←
	Bezel Front R	8114512006	←
	Panel Rear	8114861005	←
Electric	Fan Motor	8900298008	←
	Optical Filter	8114890005	←
	Audio PCB	8114949000	←
	Main/Digital PCB	8115824009	8115826003
	Main Power PCB	8115830000	←
	Key Photo PCB	8114951003	←
	Power Switch PCB	8114957005	←
	PDP Unit	S141011609	←
	Button Key Switch	8114519005	←
	Button Main Switch	8114518008	←
	Power Cord UL/CSA	8111725003	-----
	VDE	-----	8111726000
	Connection PCB	8114953007	8115193006
	I/O PCB	8114952000	←
	Video PCB	8115842003	-----
	Remoto Controller	8114649016	←
Packing	Carton Top	8114549002	←
	Carton Bottom	8114547008	←
	Packing Joint-D	8108655009	←
	Packing Pad-Top	8114551005	←
	Packing Pad-Bottom	8114550008	←
	Carton Accessory	8111799004	←

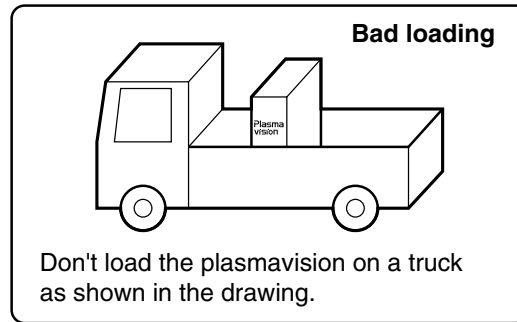
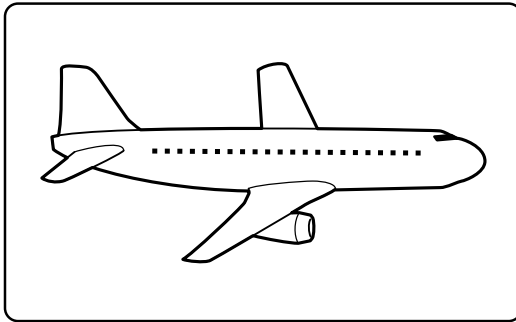
← : Same as left

Ref.no.	Description	P-SU4H10WS	P-SU4H10ES
Cabinet	Front Assy	8115262009	←
	Cover Top	8111051003	←
	Chassis Botton	8111060005	←
Electric	Main Power PCB	8115854006	←
	Main/Digital PCB	8115844007	←
	Audio Selector PCB	8114796000	8115123003
	Terminal PCB	8115858004	8115858004
	Video Selector PCB	8115852002	←
	Led/Photo PCB	8114800004	←
	LED L PCB	8114804002	←
	LED R PCB	8114806006	←
	Interface PCB	8114802008	←
	Remoto Controller	8114650012	←
	Power Cord UL/CSA	8111725003	-----
	VDE	-----	8114519005
Packing	Carton	8115110003	←
	Pad Set	8115104002	←

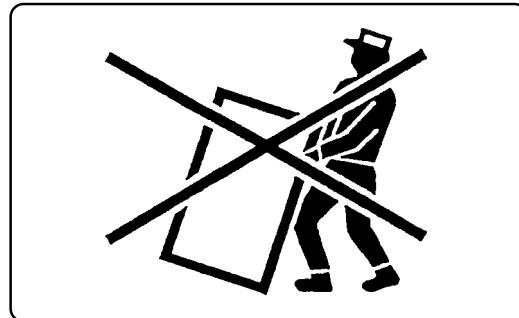
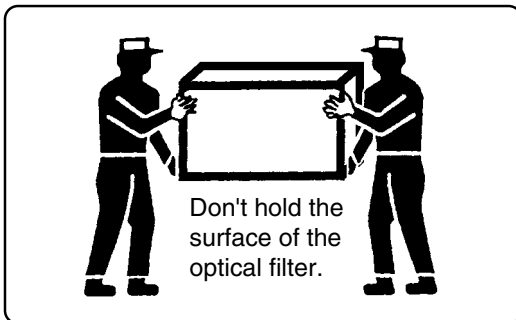
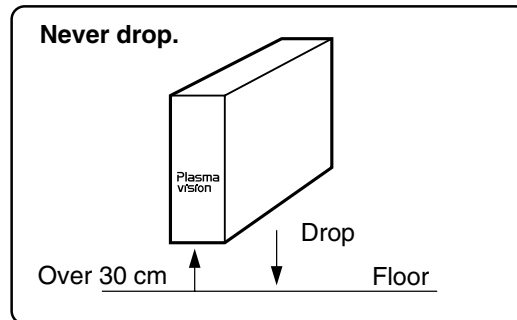
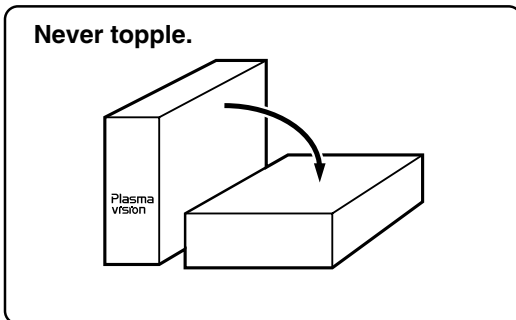
← : Same as left

# TRANSPORTATION AND HANDLING RESTRICTIONS

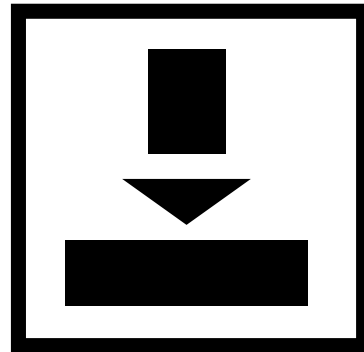
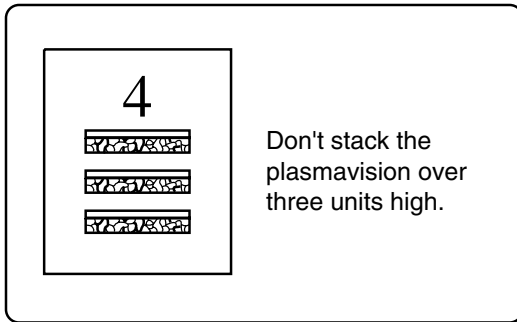
## Transportation



## Handling







### Example of good transportation and handling

